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SIXTY-EIGHTH ANNUAL REPORT
OF THE
BOARD OF EDUCATION:

TOGETHER WITH THE
SIXTY-EIGHTH ANNUAL REPORT
OF THE
SECRETARY OF THE BOARD,
1903-1904.

JANUARY, 1905.



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STATE BOARD OF EDUCATION.

1905.

EX OFFICIO.

HIS EXCELLENCY WILLIAM L. DOUGLAS, *Governor.*

HIS HONOR CURTIS GUILD, JR., *Lieutenant-Governor.*

BY APPOINTMENT.

CLINTON Q. RICHMOND,	.	.	<i>North Adams,</i>	.	.	May 25, 1905.
GEORGE I. ALDRICH,	.	.	<i>Brookline,</i>	.	.	May 25, 1906.
ELMER H. CAPEN,	.	.	<i>Somerville,</i>	.	.	May 25, 1907.
ALBERT E. WINSHIP,	.	.	<i>Somerville,</i>	.	.	May 25, 1908.
GEORGE H. CONLEY,	.	.	<i>Brookline,</i>	.	.	May 25, 1909.
CAROLINE HAZARD,	.	.	<i>Wellesley,</i>	.	.	May 25, 1910.
JOEL D. MILLER,	.	.	<i>Leominster,</i>	.	.	May 25, 1911.
KATE GANNETT WELLS,	.	.	<i>Boston,</i>	.	.	May 25, 1912.

SECRETARY.

GEORGE H. MARTIN, *Boston.*

CLERK AND TREASURER.

C. B. TILLINGHAST, *Boston.*

AGENTS.

JOHN T. PRINCE, *West Newton.*
G. T. FLETCHER, *Northampton.*
JAMES W. MACDONALD, *Stoneham.*
WALTER SARGENT, *North Scituate.*

Agent for the Promotion of Industrial Drawing.

CLERICAL ASSISTANTS.

A. CAROLINE MACDONALD.

ESTHER E. ELWELL.

ANNUAL REPORT

OF THE

BOARD OF EDUCATION.

ANNUAL REPORT.

The Board of Education has the honor to submit to the Legislature its sixty-eighth annual report.

SCHOOL ATTENDANCE AND EXPENDITURES.

There were enrolled in the public schools of the State, for the year 1903-04, 494,042 pupils. The average membership was 431,361, and the average attendance was 91 per cent. of this number, or 391,771. The records show an increase in the above items of 8,559, 7,558 and 3,155 respectively. The item of average attendance, showing an increase of 3,155, is a decided falling off from the preceding year, which was 8,590. The percentage of attendance as based on the average membership shows a decrease of 1 per cent., and the percentage based on the total enrolment also shows a decrease of 1 per cent.

The number of pupils enrolled in the evening schools shows the total of 43,780, an increase of 4,595 over the preceding year. The interest in these schools seems to be growing, and their influence is being more keenly felt, not only by the city and town authorities, but by the pupils themselves. There has seemed to be a tendency on the part of some of the local school authorities to limit the number of sessions of night schools. The law does not name the number of sessions required and some of the cities and towns have given a very meagre allowance. The tendency now seems to be toward a better understanding of the value of these schools. The number of sessions is slowly increasing, and it is to be hoped that it will not be necessary to ask for legislation on this particular point.

The number of men employed as teachers has fallen off 26 during the year, — not an encouraging sign for those who have hoped that the profession of teaching might grow in attractiveness for the male sex. The Englishmen who, under the name of the Moseley Commission, visited America last

year to investigate the industrial and social conditions, reported that the American boy lacked qualities of independence and manliness that were apparent in his English brother, and claimed that this was because such a large proportion of the American teachers were women. We hardly think this is a just indictment of the American boy or of the American woman teacher, but the fact seems to be that in this State, at least, the boy is destined to fall more and more under the influence of the woman teacher. We think that the matter of inducing more men to take up the profession of teaching is well worthy of the deep consideration of all persons interested in education. How this is to be accomplished it is difficult to say. There is no question that teaching would have more attractiveness for both men and women if they felt that their tenure of office was secure, that good progressive work would bring in its train progressive salaries, and that old age would not find them in the same straits as are so many teachers after long years of faithful service.

The number of women teachers has increased by 468. The number of teachers who have attended normal schools has increased 470, and the total number of that class of teachers in the State is now 7,392, or almost exactly half of the total number of different teachers employed during the year. These figures show a steady gain in the quality of our teaching force, and are a sure sign of the good work of our normal schools.

Massachusetts expended on her public schools last year the sum of \$16,436,667. Of this large amount, \$12,783,235 went for the support of the schools and \$3,653,432 for new school-houses, permanent improvements and ordinary repairs. The sum of \$2,642,075 for the new schoolhouses in one year is a telling record for the State. It shows that Massachusetts is true to her past, and that no burden is borne more cheerfully than that of money appropriated for the public schools. It carries with it also the warning that where, on the one hand, there is willingness, on the other there must not be wastefulness. There should be no niggardly action in regard to teachers' salaries and legitimate expenses. But teachers and school authorities alike should be careful in recommending for adoption or in putting into execution expensive innovations.

NORMAL SCHOOLS.

The year at the State normal schools has been a successful one. It has been marked by the opening of new dormitories at Fitchburg, North Adams and Westfield, and the building of the new gymnasium at Bridgewater. The dormitory at Westfield takes the place of an old one, but at Fitchburg and North Adams the new buildings are distinct additions to the equipment of the schools. We now seem to be definitely committed to the dormitory system, excepting at the schools where an almost purely local patronage renders it unnecessary and undesirable. To those who have been close observers, it seems that the influence for good of the dormitories will be far reaching. In the first place, it has been a question whether, with the multiplication of high-grade schools and colleges all over the country, the normal schools could retain their hold on the young people of the State. Schools with fine buildings, large endowments, a superior teaching force and modern equipments have proved a powerful source of competition. This competition has necessitated increased expenses in normal schools for new buildings, adequate equipments, and better and higher paid teachers. The dormitory system has helped us to meet this competition. Where a new dormitory has been built, or old accommodations modernized, it has brought new life to the schools. It has brought an institutional spirit that could not exist in schools where, after the day's work is done, the pupils are widely scattered. Social education has been promoted, and its importance cannot be too highly estimated. The new environment, carrying with it the details of suitable and tasteful furnishings, well-cooked and well-served food, good examples of table etiquette, an informal but uplifting meeting of teacher and pupil, social gatherings, formal and informal, and the many influences that emanate from a well-directed, orderly home, is most helpful in forming character. The results are already appearing in higher ideals, better manners, a keener appreciation of the nobleness of the profession of teaching and a devotion to the school and its work. This will show later in communities where pupils enter upon their work as teachers.

For several months of the past year the work pertaining to the office of secretary of the Board of Education was carried on by Mr. C. B. Tillinghast, clerk of the Board. The Board desires to make grateful acknowledgment of the cheerful and efficient way in which he carried on the duties of this office in addition to his other work as State Librarian. In February the Board elected Mr. George H. Martin to the office of secretary, to succeed the late Mr. Hill. Mr. Martin brings to the place a ripe experience, a willing spirit and an energy capable of accomplishing many things. He has it in his power to broaden and extend the influence of his office and of the Board. We believe that we are on the right course in educational matters. We believe, from the evidence in our hands, that the schools of the State were never more efficient, that the methods were never more correct and that the teaching force was never more faithful and alert than at the present time. This is not saying that just criticism cannot be made, and the Board courts such criticism, because it is only in this way that evils will be corrected. A dead calm of satisfaction in educational matters would be fatal. But silently, without apparent friction, the mighty work of education goes on. Thousands of children, foreign born and of foreign parentage, with strange language and stranger manners, are being turned into loyal American citizens by the schools of the State and nation. The work is a great and trying one, and when the complexity of the task is contemplated the wonder is that the American public school stands the test of criticism in the wonderful manner it does.

We cannot but commend again the wise legislation of the past few years. The record shows a marked tendency to unify and consolidate the educational forces of the State. The law requiring the different towns to unite in the choice of a union superintendent has been of great advantage in raising the standard of many schools. And the law of the last year, authorizing this Board to pass upon qualifications of certain of the union superintendents, will certainly be a great advantage, and will bring these schools into closer touch with the educational interests of the State. Another law that is working well is that passed in reference to high schools. This law with

its amendments is surely raising the standard of high school work. The principle is right because it helps those who are willing to help themselves. Money is not to be paid from the treasury of the State to lessen the taxation of any town, but to improve the schools. There was criticism when the State embarked on the project of new normal schools. But the facts to-day show that all of our normal schools are vindicating the wisdom of their establishment. The number of trained teachers is steadily increasing, and in some counties of the Commonwealth, notably in the western section, the number of public school teachers who have had normal school training has more than doubled within the last ten years. With this liberal spirit of the law-making branch of the government in view and with its apparent desire to bring the educational forces of the State into harmony and unity, it seems as if the time had come for the Board of Education and its secretary to get into closer relationship with the normal schools, the high schools and the schools of all grades. Of course, this has been done to a certain extent in the past, through the intimate connection of the individual members of the Board with the normal schools directly under their supervision. A knowledge of other schools has been obtained through the agents and supervisors in the employ of the Board, and through the various gatherings of teachers throughout the State.

A much more intimate knowledge of the needs of the schools might be obtained if the normal school principals in a body could meet the secretary at stated intervals. The discussions at such meetings could not fail to be valuable and illuminating. There need be no attempt to bring about uniformity or a hard and fast system of methods or examinations. Originality and individuality ought always to be at a premium. But if these meetings could bring about a unity of action, it would give an impetus to education throughout the State. These conferences could easily be extended to include superintendents and high school principals from the State at large. Such gatherings should be held in Boston at least once a year, under the leadership of the secretary, and with the attendance of the Board of Education. Then we could learn at short range the hopes, fears, doubts and ambitions of the men and women who are

directly responsible for the educational work in Massachusetts. Let the man from the largest city and the man from the smallest town touch elbows. At such times there should be exhibitions of the average school work of the State. The expense of these gatherings need not be large, but the getting together and the lining up of the educational commanders of the Commonwealth would be impressive and ought to be made inspiring. The military forces of the Commonwealth pass in review before the commander-in-chief at least once a year. Why not have those who are making the fight for the homes and the civic and intellectual honor of the State have their day? It is easy enough to say that Massachusetts "stands at the head" in educational matters. Complacency of this character always makes trouble. Let us prove it first, and then keep her at the head by retrospection, introspection and progression.

CLINTON Q. RICHMOND.

GEORGE I. ALDRICH.

ELMER H. CAPEN.

ALBERT E. WINSHIP.

GEORGE H. CONLEY.

CAROLINE HAZARD.

JOEL D. MILLER.

KATE GANNETT WELLS.

DEC. 1, 1904.

REPORTS
OF
NORMAL SCHOOLS.

STATE NORMAL SCHOOL, BRIDGEWATER.

ALBERT G. BOYDEN, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

ALBERT GARDNER BOYDEN,	Educational study of man, the principles and the art of teaching, school organization, school government, school laws of Massachusetts.
ARTHUR CLARKE BOYDEN, vice-principal,	Natural science, history and civil polity, and the history of education. "
FRANZ HEINRICH KIRMAYER,	Latin, Greek, French, German.
WILLIAM DUNHAM JACKSON,	Physical science, mathematics, English literature.
CHARLES PETER SINNOTT,	Geography, physiology and hygiene, physical science.
HARLAN PAGE SHAW,	Chemistry, mineralogy, industrial laboratory.
FRANK ELLIS GURNEY,	Classics, geometry, astronomy.
ISABELLA SARA HORNE,	Vocal culture and reading.
CLARA COFFIN PRINCE,	Vocal music, algebra.
FANNY AMANDA COMSTOCK,	Arithmetic, botany, geometry.
MARY ALICE EMERSON,	English.
ELIZABETH HELEN PERRY,	Drawing.
LILLIE EVELINE MERRITT,	Assistant in drawing.
ELIZABETH FULTON GORDON,	Physical training.
MARGARET ELLEN FISHER,	Assistant in physical training.
LILLIAN ANDERSON HICKS,	Supervisors of practice work in the model school.

INSTRUCTORS IN THE MODEL SCHOOL.

BRENELLE HUNT,	Principal.
ADELAIDE REED,	Ninth grade.
MARTHA MAY BURNELL,	Eighth grade.
SARAH VINETTA PRICE,	Seventh grade.
NELLIE MABEL BENNETT,	Sixth grade.
JENNIE BENNETT,	Fifth grade.
MARY LUCINDA WALLACE,	Fourth grade.
SARAH WHEATON TURNER,	Third grade.
ANNIE LAWRIE SAWYER,	Second grade.
FLORA MAY STUART,	First grade.
CLARA RACHEL BENNETT,	First grade.

INSTRUCTORS IN THE KINDERGARTEN.

ANNE MORGAN WELLS,	Principal.
FRANCES PLYMPTON KEYES,	Assistant.

An institution, like a person, has its own individual life. Among the prominent factors in the individuality of this school which give efficiency to its life may be noted its location, its equipment, its plan of working, its faculty and its student body.

Its location in one of the pleasantest towns of the State, away from the excitement of city life, gives it an environment which is highly conducive to the study of nature without, and to concentration and continuity of thought within, to the daily joy of life in the country, and to the free participation in outdoor recreation.

Its buildings are pleasantly grouped upon the eastern slope of the village, with a sunny exposure and surrounded by well-kept lawns. They look out on the east upon a park of six acres, with beautiful shade trees, a pond sparkling among ever-green shrubs, pleasant walks, tennis and hockey courts, and a fine chestnut grove; on the south upon an athletic field of two acres; on the west upon a fine estate owned by a graduate of the school; and on the north upon the new gymnasium and its fine lawn.

The school building is a massive brick structure in three blocks, admirably adapted to its uses and remarkably well equipped for its work by the collections of forty years under one head. The three residence halls, well furnished and with their pleasant outlook, give the students a home with a social life and feeling of fellowship which is an important factor in their professional training.

The plan of working the school, in having the students in the schoolrooms through all the session, in having the model school, including the kindergarten and the nine grades above it, in the same building, an integral part of the normal school, and in having the model school organized with a regular teacher for each grade and the normal students acting as assistants in each of these grades, keeps the normal students constantly in touch with public school work and gives them a daily increment of experience in preparation for the work of conducting a public school.

Its faculty of sixteen regular instructors, seven of whom are men, and the thirteen regular teachers in the model school, have most of them been working together many years, following the method determined by the same general principles of education, with a unity of purpose and a spirit and power of work that strongly impresses itself upon the training and character of the normal students. They breathe the ozone of

teaching which permeates the atmosphere of the school, and gradually get "the professional idea" and become genuine students of teaching.

The statistics appended to this report present interesting facts concerning the composition of the student body. The students come from high schools, academies, normal and training schools, and colleges; from every county and from eighty-four different towns and cities in this State, and from every State in New England. They are the children of fathers engaged in a great variety of occupations, and have a great diversity of ability, attainment, experience, habits and personality, but with a unity of earnest purpose and the desire to prepare themselves for teaching. The State has no more important work to sustain than the education of teachers for its public schools.

The frequent applications from superintendents for graduates of the school beyond what it is able to supply indicate a strong public sentiment in favor of trained teachers, and suggest to superintendents and school committees the importance of interesting themselves to encourage the graduates of their high schools who are best adapted to the work to come to the normal school and prepare for teaching.

One change in the faculty has occurred. At the close of the school year Miss Bessie L. Barnes, who has been the instructor in physical training for the last eleven years, resigned her position for needed rest, and Miss Elizabeth F. Gordon, a teacher of successful experience in this work, was appointed her successor. Miss Margaret E. Fisher, a recent graduate of the Boston Normal School of Gymnastics, has been appointed assistant instructor in this department.

The school sent to the Louisiana Purchase Exposition at St. Louis two exhibits: one, the outline of the several courses of study pursued in the school, giving the studies of each course and indicating the purpose, the range and the method of teaching each study. The other gave the graded outline of nature study as pursued in the kindergarten and the nine grades of the model school, with illustrations taken from the pupils' work in each grade.

The most important addition to the equipment of the school

for the year is the new gymnasium, which is very nearly completed. It is a beautiful brick building trimmed with marble and copper, of the Romanesque style of architecture, and has a fine location on the other side of the street, directly opposite the main school building. The main part of the building is forty-eight by ninety feet; the projection on the front is twenty-four by sixty-four feet, with octagonal towers on the front corners for stairways. The basement story is divided into a janitor's room, a kitchen, and two apartments, — one for men, the other for women; each apartment has a coat room, lockers, dressing rooms, sanitaries and baths, — twenty-two baths for men, thirty-two for women. Each bath room is piped for separate simultaneous baths. The first floor has the vestibule, corridors, director's room, ladies' retiring room and the gymnasium. The second floor has two class rooms on the front, and the gallery with the running track. It is a first-class modern gymnasium.

Messrs. Hartwell, Richardson & Driver of Boston are the architects. Mr. Frank D. Williams of Taunton is the main contractor. Walworth Manufacturing Company, Boston, put in the steam-heating apparatus; Edward C. Kelley of Boston, the plumbing; the Troy Brothers Company, Boston, furnish the marble work; Edwin C. Lewis of Boston the electrical lighting; the Seth Fuller Company, Boston, the telephone service; the Standard Electric Time Company, Waterbury, Conn., the electric time service; and the Spalding Manufacturing Company, Chicopee, Mass., put in the apparatus.

The statistics of the school for the year ending Aug. 31, 1904, are as follows: —

1. Number of students for the year, 256, — 30 men, 226 women; number in the entering class, 113, — 12 men, 101 women; number of graduates for the year, 89, — 7 men, 82 women; number receiving certificates for special courses, 16, — 1 man, 15 women.

2. The whole number of students who have been members of the school is 5,269, — 1,330 men, 3,939 women. The number who have received certificates or diplomas is 3,533, — 892 men, 2,641 women; of whom 297 have graduated from the four years' course, — 154 men, 143 women.

3. Of the 256 members of the school for this year, Plymouth

County sent 66; Middlesex, 38; Norfolk, 37; Bristol, 34; Suffolk, 18; Essex, 12; Hampden, 7; Worcester, 7; Barnstable, 6; Dukes, 2; Franklin, 2; Hampshire, 2; Nantucket, 2; Berkshire, 1; the State of Maine, 7; New Hampshire, 7; Vermont, 4; Rhode Island, 2; Connecticut, 1; New Jersey, 1. Total from Massachusetts, 234, every county and 84 towns being represented; other States, 22.

4. The distribution of the students for the year was as follows: special courses, 24, — 1 man, 23 women; four years' course, 48, — 24 men, 24 women; intermediate course, 31, — 1 man, 30 women; kindergarten course, 2; elementary course, 151, — 4 men, 147 women.

5. The average age of those admitted was 20 years and 4 months; of special students, 24 years and 10 months; of students entering upon regular courses, 19 years and 3 months.

6. Of the 113 admitted, 8 came from colleges, 9 from normal and training schools, and 96 from high schools and academies; 29 had taught previous to coming.

7. The occupations of the fathers of those admitted were given as follows: mechanics, 26; farmers, 15; merchants and dealers, 15; clerks, 6; salesmen, 6; real estate and insurance agents, 5; laborers, 5; physicians, 4; teachers, 3; manufacturers, 3; contractors, 3; engineers, 3; clergymen, 2; government officials, 2; foremen, 2; banker, 1; captain of steamer, 1; barber, 1; retired or deceased, 10.

8. Of the 113 students admitted, Boston sent 9; Brockton, 8; Bridgewater, 6; Taunton, 5; Easton, 4; East Bridgewater, Fall River, Haverhill, Weymouth and Whitman, 3 each; Braintree, Canton, Duxbury, Hyde Park, Kingston, Lawrence, Nantucket, Somerset, Somerville, Springfield and Woburn, 2 each; Abington, Berkley, Cambridge, Carver, Deerfield, Dennis, Dracont, Eastham, Edgartown, Hadley, Holbrook, Hopedale, Leicester, Littleton, Longmeadow, Malden, Marshfield, Mattapoisett, Medford, Needham, Princeton, Quincy, Randolph, Reading, Royalston, Shelburne, Stoneham, Walpole, Watertown and West Boylston, 1 each; Maine, 5; New Hampshire, 3; Vermont, 3; Rhode Island, 2; New Jersey, 1.

GEORGE I. ALDRICH,

CAROLINE HAZARD,

Board of Visitors.

STATE NORMAL SCHOOL, FITCHBURG.

JOHN G. THOMPSON, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

JOHN G. THOMPSON,	Pedagogy.
E. A. KIRKPATRICK,	Psychology, child study and school laws.
PRESTON SMITH,	Natural science and manual training.
CHARLES S. ALEXANDER,	Mathematics.
FLORA E. KENDALL,	English.
NELLIE B. ALLEN,	Geography.
FLORENCE M. MILLER,	History.
ANNETTE J. WARNER,	Drawing.
ELIZABETH D. PERRY,	Music and physical culture.
ABBY P. CHURCHILL,	Nature study.

INSTRUCTORS IN THE MODEL AND PRACTICE SCHOOLS.

CHARLES S. ALEXANDER, Principal.

The teachers in the normal school supervise the teaching of their respective subjects in the model and practice schools.

INSTRUCTORS IN THE PRACTICE SCHOOLS.

CAROLINE G. HAGAR,	Supervisor in primary grades.
MATTIE A. COLE,	Supervisor in primary grades.
MERCIE A. ALLEN,	Supervisor in grammar grades.
MATILDA B. DOLAND,	Supervising principal, Day Street school.

INSTRUCTORS IN THE MODEL SCHOOLS.

FLORENCE E. SCOTT,	Kindergartner.
GEORGIANA H. JUBB,	Assistant kindergartner.
L. FRANCES JONES,	First grade.
IDA M. AUSTIN,	Second grade.
MARY McCONNELL,	Third and fourth grades.
MARGARET M. SLATTERY,	Fifth and sixth grades.
MERCIE A. ALLEN,	Seventh and eighth grades.
FIDELIA E. NOURSE,	Assistant, seventh and eighth grades.
MARY L. MERRILL,	Ungraded.

The present year closes the first decade of the existence of the Fitchburg Normal School. It may be interesting, therefore, to look back and to trace from the beginning some of the aims of the school and to see how far they may have been realized.

The board of visitors, principal and faculty of the school have from the beginning endeavored to bring into the train-

ing of teachers a practical element as well as a theoretical. The aim has been to give, in addition to the theory and philosophy of teaching and the study of subjects to be taught, an opportunity to do actual teaching for some considerable length of time, and to do this teaching under conditions as similar as possible to those which are met with after graduation. That this should be attempted by the new normal schools established by the act of 1894 was clearly indicated in the wording of the act. The plan of the school, then, from the beginning has included, besides the normal school proper, in which is taught the history and theory of education, psychology and child study, and the special application of educational principles and methods to the subjects pursued in the grades below the high school, another system of schools of observation and practice. These, in accordance with the terms of the act founding the school, were provided by the city of Fitchburg, and a contract between the city and the State was drawn up at the outset.

The normal school itself was first organized in the old high school building belonging to the city of Fitchburg, the first entrance examinations being held in June, 1895. In September of that year a class of forty-six was admitted. A principal and three assistants were employed. The following fall the school moved into its new building, and took charge of the schools in the Day Street and the Highland Avenue buildings, turned over, according to contract, by the city to the State for use as schools of observation and practice. Somewhat later several model schools, or schools of observation, were opened in the normal school building. The general aim was then, and has been through all the following years, to teach the history and theory of education together with child study and psychology and a more or less hasty review of subjects to be taught in the grades below the high school, — to teach these during the first year and a part of the second year of the normal school course, using the schools of observation as schools to which students may be taken to see, put into actual effect by expert teachers, the principles, methods and devices discussed in the theoretical study of teaching. During the second year of the elementary course each student has been

required to teach in full charge of a room in the practice schools for a period of not less than twelve weeks, — teaching in full charge for five hours daily and five days per week.

Another aim of the school has been to allow no instructor to deal only with the theory of education or with the theoretical aspect of a branch of study, but to have the head of every department in the normal school proper come in close and continued contact with the children in the grades, and to do constantly more or less teaching in all the different grades. In this way we have hoped to avoid the danger which comes from instruction given by those who simply theorize and have none of the practical duties of carrying into effect the theories propounded. This, which was not attainable at the very beginning, has now been accomplished, and every instructor in the normal school supervises and teaches in the practice schools, the time being about equally divided between the two.

Another aim of the school, and one which was not clearly and fully perceived at the first, has been to give those who seem particularly adapted to teaching an opportunity for broader culture and larger experience before they finally leave the care of the school. This has been arrived at through the advanced course, which is offered to those graduates of the elementary course who have shown particular promise. To such an opportunity is given to teach the third year in Leominster or Fitchburg as a regular teacher, drawing pay, but supervised in addition to local supervision by the faculty of the normal school. No work done by the school has been more satisfactory in the doing or in the results than this of the advanced course. It enables the school to exercise one of its most important functions, the selection of the fittest.

In addition to these aims the school has striven to bring to its students and to the community the best thought of the day, and to stand itself in the minds of the community, not as an abstraction but as a concrete reality. To further this end, annual lecture courses have been given by some of the leading thinkers and educators in American life. These courses have grown in interest and effectiveness from year to year. Perhaps nothing has been done in the school with an equal expenditure of money from which we have received so large and

profitable returns. Among others the following have come to us with the best that they had to give, and have opened and enlarged the vision and have brought a power and inspiration in a way and to a degree that no faculty, however wise and able, laboring in the same school year after year, could possibly have accomplished. Among those who have helped us in this way are : —

Dr. G. Stanley Hall, Worcester.

Prof. John M. Tyler, Amherst.

Prof. Earl Barnes, London, Eng.

Dr. John Bascom, Williams College.

Prof. Hiram Corson, Cornell University.

Prof. George H. Palmer, Harvard University.

Mr. Edward Howard Griggs, Montclair, N. J.

President William DeWitt Hyde, Bowdoin College.

Rev. Edward Cummings, Boston, Mass.

Mr. Leon H. Vincent, Philadelphia, Pa.

Mr. Frank M. Chapman, Curator American Museum of Natural History.

Mr. Henry A. Clapp, Boston, Mass.

Mrs. Alice Freeman Palmer, Wellesley College.

Dr. William H. Burnham, Clarke University.

Dr. Thomas M. Balliet, Springfield, Mass.

Hon. A. S. Roe, Worcester, Mass.

The lectures for the past year have been as follows : —

William DeWitt Hyde, President of Bowdoin College (five lectures),
— Types of Personality : Epicurean, Stoic, Platonic, Aristotelian,
Christian.

Hon. Alfred S. Roe, Worcester, — Washington's Three Visits to
Massachusetts.

Edward Howard Griggs, Montclair, N. J. (six lectures), — The
Divine Comedy of Dante.

Graduation Address, Rev. A. A. Berle, Boston, — Literature as a
Personal Resource.

In this first ten years of the life of the school, many of the aims — aside from those general aims that must govern all education, and those special aims that all agree upon in the special education of teachers — have pertained to

equipment and organization. The school to-day finds itself with most of these aims attained. It has grown in the decade from a single class of forty-six pupils in an old building rented from the city of Fitchburg to a school of over one hundred and thirty, with three large buildings on its own land, with two buildings furnished by the city of Fitchburg in its charge, and with a class of students acting as regular teachers under its direction in the neighboring town of Leominster. Its equipment, apparatus, library — generous at the first — have been greatly enlarged and improved. The walls, barren and untinted, have been painted and hung with pictures and casts, gifts of graduating classes and the alumni association, a list of which follows : —

First class, elementary course, 1897 — Cast, four panels, The Singing Boys (Raphael).

First class, advanced course, 1898 — Busts (Milton, Horace Mann).

Second class, elementary course, 1898 — Busts (Goethe, Virgil, Homer, Dante, Shakespeare).

Second class, advanced course, 1900 — Flower fund started.

Third class, elementary course, 1899, and fourth class, elementary course, 1900 — Casts, The Chariot Race (from the Parthenon frieze), eight panels.

Fourth class, advanced course, 1902 — Nike, or Victory of Samothrace (in the Louvre); Lorenzo De Medici (by Michelangelo); St. George and the Dragon (Carpaccio).

Fifth class, elementary course, 1901 — The Night Watch (Rembrandt); Justice of the Law (Edward Simmons).

Fifth class, advanced course, 1903 — Aurora (Gnido Reni).

Sixth class, elementary course, 1902 — Apollo Citharædus (after Scopas, in the Vatican).

Sixth class, advanced course, 1904 — The Canterbury Pilgrimage.

Seventh class, elementary course, 1903 — Statue, Diana of Versailles, or Diana and the Stag (in the Louvre); Avenue of Trees (Hobbema); Round Table (by Edwin Abbey, R.A., in Boston Public Library); Castle of Maidens (by Edwin Abbey, R.A., in Boston Public Library).

Eighth class, elementary course, 1904 — Sun Dial.

Alumni Association, 1899 — The Sistine Madonna (Raphael).

Alumni Association, 1900 — Children of the Shell (Murillo).

Alumni Association, 1901 — The Shepherdess (Millet), and The Willows (Corot).

Alumni Association, 1902 — Hanging electric banquet lamp.

Alumni Association, 1903 — Evolution of a Book (Alexander).

Alumni Association, 1904 — Whistler's Carlyle, and Two Bay Trees.

In 1900, five years after the organization of the school, a twelve-room practice school was built upon the State land at a cost of \$50,000, from funds contributed by the State and the city. In 1902 a boarding hall was erected by the State. This hall is now more than filled, and the attic, left unfinished, should soon be finished into rooms. The influence of thus bringing together the pupils of the school in a building under the direct control of the school, with all the opportunities that it offers for helpfulness, was but dimly appreciated when the building was erected. It seems impossible now that we could have lived so many years without it.

Some changes and rearrangements of work have taken place in several departments during the last year. Miss Mary I. Chapin, supervisor of the primary grades in the Day Street school, resigned in June. Mr. Joseph T. Whitney, teacher of manual training, and Miss Helen M. Humphrey, teacher of mathematics, severed their connection with the school at the same time. The schools in the Day Street building were brought together into a smaller number and the rooms put in charge of the students in the advanced course, with Miss Matilda B. Doland as supervising principal. Mr. Preston Smith is temporarily taking charge of the work in manual training, in addition to his regular work in science, while Mr. Charles S. Alexander, principal of the model and practice schools, has taken the regular work in mathematics.

The statistics for the year ending Aug. 31, 1904, are as follows : —

1. Number of students for the year, 118, — 116 women, 2 men. Number in the entering class, 44 women. Number of graduates for the year, 52, — 51 women, 1 man : 33 from the elementary course, 3 from the kindergarten course, 16 from the advanced course. Number receiving certificates for special courses, 6.

2. Whole number of students admitted since the opening of the school, 522, — 511 women, 11 men (this number includes the class admitted in the fall of 1904).

3. Number of States represented in the membership of the school for this year, 3.

4. Number of counties in Massachusetts represented, 3.

5. Number of towns in Massachusetts represented, 29.

6. Average age of entering class, 18.8 years.

7. Number who have had experience as teachers, 6.

8. Occupation of parents: farmers, 6; bookkeeper, 1; lawyer, 1; doctor, 1; postmaster, 1; manufacturers, 6; carpenter, 1; blacksmith, 1; machinists, 3; laborers, 4; merchants, 9; stone mason, 1.

Number of students in attendance Dec. 1, 1904, 133.

JOHN G. THOMPSON,

Principal.

STATE NORMAL SCHOOL, FRAMINGHAM.

HENRY WHITTEMORE, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

HENRY WHITTEMORE,	School organization and government, pedagogy.
AMELIA DAVIS,	Mathematics and astronomy.
FREDERIC W. HOWE,	Chemistry, physics, dietetics.
AVERY E. LAMBERT,	Biology, nature study.
LOUISA A. NICHOLASS,	Household arts.
LILLIAN A. ORDWAY,	Geography, psychology of childhood, Latin.
MARY C. MOORE,	English language and literature.
ANNA L. MOORE,	History and civil polity.
MARY H. STEVENS,	French.
JANE E. IRESON,	Elocution and reading.
JENNIE E. BOODY,	Drawing.
FREDERIC W. ARCHIBALD,	Music.
MARY BENNETT,	Physical training, physiology.
SUSAN M. EMERSON,	Sloyd.

INSTRUCTORS IN THE PRACTICE SCHOOL.

SUSAN M. EMERSON,	Ninth grade.
ANTOINETTE ROOF,	Eighth grade.
LEILA J. WEBSTER,	Seventh grade.
NELLIE A. DALE,	Sixth and fifth grades.
ALICE V. WINSLOW,	Fourth grade.
LOUISE G. RAMSDELL,	Third and second grades.
ELIZABETH A. MALLOY,	First grade.
PHEBE M. BEARD,	Kindergarten.

REPAIRS AND IMPROVEMENTS.

The two improvements projected last winter have been satisfactorily completed. The new cistern now receives the rain water, which previously ran to waste through the main sewer, and utilizes it in the power house, thus saving expense in the lessened consumption of town water, and affording the necessary soft water for the proper running of the boilers. The cistern is 43 feet long, 6 feet wide, 4 feet, 4 inches deep and holds approximately 8,000 gallons of water.

The second improvement required the thorough excavation of the old sewer beds, the laying of many new pipes, and an extension of the beds themselves, which were originally planned for a smaller school than now exists. The area laid aside for

still further use is being gradually prepared by utilization of ashes and other material.

The interior of Crocker Hall has been repainted; the electric wires have been encased, new plumbing has been substituted for old and a new sleeping room has been contrived out of the corner of a lumber attic.

At Framingham, as at all the normal schools, one cannot but rejoice at the economy with which substantial improvements are made, and honor the principals of the schools for their willingness to give a large part, or the whole of their summer vacations to the supervision of such work.

CHANGES IN THE FACULTY.

Miss Anna M. Clark, who returned in the autumn from Columbia College, with the degree of A.M., which she had won, after teaching in her old position at Framingham, resigned to accept similar duties in the New York City Training School. Her exceptional gifts as teacher at Framingham are surety of her continued success. Mr. Avery E. Lambert, instructor at Dartmouth College, has taken her place at the normal school.

Increasing duties at the Institute of Technology compelled the resignation of Mr. Samuel C. Prescott as teacher of bacteriology, and his place was satisfactorily filled by Mr. Charles E. A. Winslow.

Miss M. Elizabeth Holbrook, an accomplished teacher of history, resigned in June, after fourteen years' service, to accept a position in a private school, and Miss Anna L. Moore, who has been at the head of the department of history in the Framingham high school, has assumed Miss Holbrook's position in the normal school. Miss Louise G. Ramsdell of Natick has taken the place in the third and second grades of the practice school of Miss S. Winnifred Munroe, whose resignation we were sorry to accept.

GENERAL CONDITIONS.

The health of the normal school pupils is stimulated by the out-door games and exercise required, while care of the school gardens adds to the physical welfare of the practice school.

The increasing insistence upon student government, emanating only from the union of high principles with noble, courteous manners, is developing a spirit of self-reliance and kindliness among the pupils.

Music is being more and more recognized by them as part of education and as tending to harmony and grace of character. Hence their voluntary study of the great composers and their keen appreciation of the recitals they hear at the school.

GIFTS.

The schoolrooms are being enriched each year by gifts from friends and graduating classes. In the sloyd room, photographs of trees have been presented, suggesting the material with which the pupils work. The last two pictures, "The Burnham Beeches" and "The Birches on the Charles River," were presented one by the class of 1879, the other by the class of 1903. Miss Ireson and her friends have decorated her room (the one assigned to reading) with a frieze of photographs of Roman and Greek art, and with photographs of English cathedrals. No one gift will be productive of more continuous good than that of \$1,500, received from the estate of Robert C. Billings, through one of his executors, Mr. Thomas Minns, the income of which is "to be used for needy and deserving pupils."

FURTHER OPPORTUNITY FOR PRACTICE WORK.

The widening opportunities for observing and practising in towns near Framingham somewhat offset the limited resources of the practice school in May Hall and of the two class rooms in the Stone Building of the town. Yet the need of greater practice facilities is imperative, that the normal students under wise supervision may have more scope in training themselves to become teachers. Interchange of work other than supervision also has materially added to the benefits received by teachers and pupils alike, since the instructors of the normal department have outlined the work, supervised and taught in the practice schools, and the training teachers have conferred with the normal faculty concerning the individual merits of the students teaching in their rooms.

FIFTIETH ANNIVERSARY.

On Dec. 15, 1903, was celebrated the fiftieth anniversary of the removal of the school from West Newton to Framingham. Judge C. C. Esty, a former visitor of the Board of Education for the school, and Rev. Lucius R. Eastman, a former instructor in the school, gave in May Hall many pleasant reminiscences of the past.

The lectures for the past year have been as follows : —

Miss Ellen Thompson, Brookline, — Bits of Life and Folk Lore in Ireland.

Senor Dharmapala, Ceylon, — Industrial School in Benares, India.

Mr. Lyman Ward, Alabama, — School for white children, at Camp Hill, in which is teaching one of the graduates of the Household Arts Department, Framingham.

Judge W. A. Kingsbury, South Framingham (two lectures), — Make-up and Duties of State Courts; The Laws relating to Children.

John T. Prince, West Newton, — Some American Ideals in Education.

Walter Sargent, North Scituate, — Value and Practice of Drawing in the Public Schools.

C. E. Maynard, West Newton (three lectures), — Birds. (Mr. Maynard also “conducted” three “bird walks.”)

President William DeWitt Hyde, Bowdoin College, — Personality of the Teacher.

His Honor Curtis Guild, Jr., Lieutenant-Governor, — Graduation Address.

Concerts have been given by the Schubert Stringed Quartette of Boston, the Arion Trio and the Glee Club of the normal school. One morning was given to an essay on “The Oratorio,” followed by solos and choruses from various oratorios, rendered by the school.

STATISTICS.

1. Number of pupils admitted, September, 1903, 77. Number who graduated in June, 1903, 84; of this number, 71 graduated from the regular two years' course, and 13 from the Department of Household Arts. Whole number of pupils for the year 1903-04, 188; they were divided as follows: seniors, 87; juniors, 94; post-graduates and specials, 7; total, 188.

2. Average age of pupils admitted in September, 1903, 18 years, 11 months.

3. Occupation of parents: lawyer, 1; physician, 1; clergyman, 1; farmers, 5; bookkeepers, 3; watchman, 1; overseer, 1; clerks, 4; expressman, 1; boss spinner, 1; laborers, 2; salesmen, 2; silver-smith, 1; teamster, 1; baggage-master, 1; motorman, 1; foreman, 1; reporter, 1; watch-makers, 2; packer, 1; mechanics, 4; collector, 1; carpenters, 4; fireman, 1; bookfinisher, 1; painter, 1; business, 33; total, 77.

4. Residences of 77 pupils admitted in September, 1903: Massachusetts: Middlesex County, 40; Worcester County, 13; Norfolk County, 7; Bristol County, 4; Suffolk County, 3; Plymouth County, 2; Hampshire County, 2; Hampden County, 1; Nantucket County, 1; total, 73. From other States: Maine, 2; New Hampshire, 1; Colorado, 1; total, 4. From Massachusetts, 73; from other States, 4; total, 77.

KATE GANNETT WELLS,
GEORGE H. CONLEY,

Board of Visitors.

STATE NORMAL SCHOOL, HYANNIS.

W. A. BALDWIN, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

W. A. BALDWIN,	Psychology, pedagogy, history of education.
BERTHA M. BROWN,	Biology, mathematics.
ANNIE S. CROWELL,	Physical training.
HANNAH M. HARRIS,	English, history.
MINERVA A. LAING,	Chemistry, mineralogy, drawing.
CHARLES H. MORRILL,	Geography, manual training, physics.
EDMUND F. SAWYER,	Vocal music.

INSTRUCTORS IN THE TRAINING SCHOOL.

GEORGE H. GALGER,	Principal, eighth and ninth grades.
ANNIE H. CHADWICK,	Sixth and seventh grades.
ALICE G. HOSMER,	Fifth and sixth grades.
MABEL M. KIMBALL,	Principal of primary department fourth grade.
ANNIE S. CROWELL,	Third grade.
SARAH S. FORD,	Second grade.
IDA E. FINLEY,	First grade.

During the past year the school has continued to develop along the lines of some of the more obvious of the doctrines of modern pedagogy. In the Hyannis catalogue for 1904, the principal of the school has made the following statement : —

By the resolve of the Legislature under which normal schools were established, their design is stated to be “qualifying teachers for the common schools of Massachusetts.” It is more fully stated by a vote of the Board of Education, passed May 6, 1880 : —

The design of the normal school is strictly professional ; that is, to prepare in the best possible manner the pupils for the work of organizing, governing and teaching the public schools of the Commonwealth.

The above statements seem open to either of two constructions, viz. : the normal school may simply attempt to cater to the demand which it finds existing, being satisfied to prepare teachers who will obediently follow along in the well-beaten paths ; or, on the other hand, it may feel that the public schools of the State have a right to look to it for leadership in the matter of method and professional spirit ; that it has for its duty not only the preaching of the highest

educational doctrine, but the application of these principles in the training school under its charge; that the teachers of the State may find in these training schools an exemplification of the educational policy of the normal school; that graduates may go out from the school armed not only with a proper understanding of the most approved methods of child development, but after considerable personal experience in the concrete application of these methods and such inspiration as comes from seeing the successful outcome from such application.

The best normal schools of our country have always accepted their responsibility in the matter of setting up new ideals in education, and I believe that every normal school in Massachusetts is now being managed with this as a guiding principle, and is a source of inspiration.

It is in line with this policy that the Hyannis school is trying to work; and we believe that the small size of the school and the character of its environments give us very great advantages for working out some of the problems which now confront all who are interested in the public schools.

We are attempting to give our students a profound respect for scholarship, a longing after truth, an ever-increasing respect for the opinions of earnest, honest men, and a burning desire to be of some use in the world.

APPRECIATION FROM SWITZERLAND, ENGLAND AND SCOTLAND.

The friends of the school find much cause for gratification in the fact that the school, not yet eight years old, is already receiving recognition from educational experts, not only of our own State but of other States and even other countries. This recognition has been expressed in a variety of ways, among which are the following. During the past winter a request came to the Governor of the Commonwealth from the president of the International Congress of Drawing Teachers that the principal of the Hyannis Normal School should be sent to the meeting of the Congress in Berne, Switzerland, to describe the work which is being done at Hyannis. Mr. Baldwin was granted a leave of absence for this purpose and was given permission to send an exhibit which might become a part of a permanent exhibition at Freiburg, Switzerland. Both paper and exhibit received careful consideration, and by special request the exhibit was allowed to go to England and Scotland for six weeks.

GOLD MEDAL FROM THE LOUISIANA PURCHASE EXPOSITION.

The school was awarded a gold medal at the Louisiana Purchase Exposition at St. Louis for the general excellence and the progressiveness of the work.

RECOGNITION FROM THE UNIVERSITIES.

Recognition of a different sort, but no less valuable, is being received from some of the universities. For instance, a graduate from the four years' course has recently been given credits for over two years of college work at Cornell, where normal graduates usually consider themselves fortunate if they can secure one year's credit. Assurances have been received from several other prominent universities that the scholastic work done at Hyannis will receive equal recognition with that of the best normal schools of the country. College graduates who attend either the summer or winter session find work equal in quality to that in similar courses in the colleges which they have attended, and such are among the most appreciative of the students at Hyannis.

HYANNIS NOT A SCHOOL OF FADS.

The above statements ought to help the reader to appreciate the fact that the school is administered on a sound pedagogical basis and is not a school of fads. Because of the prominence given to industrial education and to physical training, some persons, who know very little of the inner workings of the school, have gained the impression that these lines of work are emphasized at the expense of real scholarship in both the normal and the training schools. If, however, any one will take the pains to visit the school and investigate for himself, he will be convinced that its whole policy makes for thorough, honest work and a realization of that which is best in the world of thought.

THE NORMAL SCHOOL FACULTY.

Another safe index of the character of any school is the character of the individual teachers who make up the faculty. Hyannis has, in its normal department, seven teachers. Mr. Baldwin, the principal, is a graduate of Harvard Univer-

sity and of the Oswego Normal School, and has studied at Cornell and Chicago universities. Miss Brown, the instructor in biology, is a graduate of the Massachusetts Institute of Technology and has studied at Woods Hole. Mr. Sawyer, the instructor in music, has studied at Wesleyan University, was graduated from the New England Conservatory of Music and has studied with some of the best teachers of singing and musical theory in this country and England. Mr. Morrill, the instructor in physics, is a graduate of Harvard University and of the Bridgewater Normal School. Miss Laing, instructor in chemistry, is a graduate of the Oswego Normal School and has had a special two years' course at the Massachusetts Institute of Technology. Miss Harris, instructor in history, is a graduate of Cornell University and of the Farmington Normal School. Miss Crowell, instructor in physical training, is a graduate of the four years' course at Hyannis and of the course in physical training at Harvard University.

These teachers are all young, progressive and wide-awake. They are in thorough sympathy with the ideals which the school has set for itself, and all are imbued with a strong desire to have the school rank as one of the best normal schools in the country.

MATERIAL DEVELOPMENTS.

There are always repairs and improvements which demand attention. The policy of this school from the first has been to attend first to the most pressing needs and then, whenever, by careful economy, a small sum could be spared from the regular appropriation, to use it in some long-desired improvement. In this way, without ever asking for a special appropriation, the school has kept the buildings and grounds in good repair, and almost every year some part of one of the buildings or of the grounds has been beautified.

During the past year the drawing room has been quite transformed. This has been accomplished by means of a new ceiling of buckram with panelling and by the painting of the side walls. This room is now as attractive as the main hall, which was treated in a similar manner a few years ago. The total expense of this improvement was about \$130.

Ever since the school opened it has seemed desirable to have

a safe for keeping the records of the school. A very satisfactory second-hand safe has been secured for \$65.

There has been a growing demand for a piano for use in the gymnasium. An opportunity offered for securing a fairly serviceable instrument for \$75, and it was, therefore, purchased.

The increased use of the stereopticon for both normal and training schools has made it seem desirable to have another engine for running the fan when the regular engine is running the dynamo for the stereopticon. A five horse-power engine was, therefore, installed at an expense of about \$50.

The manual training department has long felt the need of a turning lathe. By careful planning, and by having much of the work done by the engineer and the instructor in manual training, it has been possible to secure a seven horse-power engine, a good turning lathe, shafting, belting, pulleys and piping, and to install the same at a total expense of only about \$135.

LIGHTING.

The gasolene continues to prove unsatisfactory as a means of lighting the dormitory. Investigations are being made as to the possibility of securing something more satisfactory for this purpose.

CHANGES IN THE TEACHING FORCE.

Only two changes have occurred in the teaching force during the past year, one in the normal and the other in the training school. During the spring resignations were received from Mr. F. H. Holmes, who had for six years been instructor in physics, physiography and manual training in the normal school, and from Miss Clara M. Wheeler, who had for three years been principal of the primary department of the training school. Mr. Charles B. Scott, formerly of the Oswego Normal School, was elected to the normal school position. Soon after his election, and before assuming his duties, Mr. Scott suddenly died. After the very careful consideration of several strong candidates, Mr. Charles H. Morrill was elected to this position.

Miss Mabel M. Kimball, who had for several years been teaching in the primary department of the training school, was

promoted to the principalship and Miss Sarah S. Ford was elected to have charge of the second grade.

Miss Bertha M. Brown, who was absent from the school on account of illness during the school year 1903-04, returned to her duties in September, 1904.

STATISTICS.

The statistics for the regular session are as follows :—

1. Number of students registered Sept. 8, 1904 : men, 7 ; women, 34 ; total, 41.

2. Number of students registered since Sept. 9, 1897 : men, 38 ; women, 225 ; total, 263.

3. Average age of entering class when admitted, 20 years and 8 months.

4. Number who have had experience as teachers, 7.

5. Residence of pupils : Barnstable County, — Barnstable, 6 ; Bourne, 1 ; Chatham, 2 ; Orleans, 1 ; Sandwich, 3 ; Yarmouth, 1 ; total, 14. Bristol County, — Fall River, 1. Berkshire County, — Williamstown, 1. Essex County, — Salem, 1. Middlesex County, — Belmont, 2 ; Malden, 1 ; South Sherborn, 1 ; Winchester, 1 ; total, 5. Plymouth County, — Norwell, 1. Worcester County, — Worcester, 1. New Hampshire, 1. Porto Rico, 1.

6. Occupations of pupils' parents : farmers, 4 ; merchants, 2 ; cranberry buyers, 2 ; carpenter, engineer, general business, minister, manufacturer, painter, printer, plumber, real estate agent, secretary, superintendent of steamship company, 1 each.

THE SUMMER SESSION.

The summer session for 1904 was in many ways the most satisfactory that the school has ever experienced. The number of students was as large as could be well accommodated. The general character of those in attendance has seemed to improve from year to year, until now the average ability and experience represented is very encouraging and satisfactory to the faculty. A large percentage of the students return from year to year, and the faculty remains about the same, so that each succeeding summer the work is taken up quickly and is moved along a little farther than in the preceding summer. This means that the school is each year becoming a better ap-

preciated and more potent factor in elevating the educational standards of the teachers of the State.

During the past summer there were in attendance 162 students. Of these, 143 either reside or teach in Massachusetts. These were distributed as follows:—

From the Cape,	21
From Eastern Massachusetts,	110
From Western Massachusetts,	12

The following statistics may also be of interest:—

Average age (years),	29.8
Average years of experience,	7
Number of students graduated from college,	6
Number of students graduated from normal schools,	41
Number of students graduated from training classes,	13
Number of students graduated from high schools,	93
Number of students who had attended college,	14
Number of students who had attended normal schools,	37
Number of students working for a diploma,	57

FACULTY FOR THE SUMMER SESSION.

W. A. BALDWIN,	Principal.
EDMUND F. SAWYER,	Instructor in music, State Normal School, Hyannis.
MARY E. LAING,	Formerly instructor in pedagogy, State Normal School, Oswego, N. Y.
ELIZABETH H. SPALDING,	Instructor in English, Pratt Institute, Brooklyn, N. Y.
CHARLES P. SINNOTT,	Instructor in geography, State Normal School, Bridgewater.
FREDERIC L. BURNHAM,	Supervisor of drawing, Providence, R. I.
SARAH J. WALTER,	Supervisor of training department, Hampton Normal School, Hampton, Va.
CLARA M. WHEELER,	Formerly principal of primary department, Hyannis Training School.
MABEL M. KIMBALL,	Supervisor of industrial work, Hyannis Training School.
ALICE G. HOSMER,	Teacher of fifth grade, Hyannis Training School.
ABEL J. GROUT,	Instructor in botany, Boys High School, Brooklyn, N. Y.

CAROLINE HAZARD,
GEORGE I. ALDRICH,

Board of Visitors.

STATE NORMAL SCHOOL, LOWELL.

FRANK F. COBURN, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

FRANK F. COBURN,	Psychology, principles of education.
HUGH J. MOLLOY,	Physics, chemistry and arithmetic.
MABEL HILL,	History, civil government and history of education.
ANNA W. DEVEREAUX,	Kindergarten theory and practice and child study.
ADELIA M. PARKER,	Supervision of practice work.
AMY R. WHITTIER,	Drawing and manual training.
MARY HUSSEY,	Reading, vocal training and physical culture.
MABEL C. BRAGG,	English grammar, rhetoric and literature.
SARAH C. WHELTON,	Music.
CLARENCE M. WEEB,	Nature study and physiology.
BERTHA J. CURTIS,	Geography, algebra and geometry.

INSTRUCTORS IN THE MODEL SCHOOLS.

Lowell Division.

CYRUS A. DURGIN,	Principal.	BRIDGET SMITH,	Assistant.
BELLE A. PRESCOTT,	Assistant.	ALICE D. SUNBURY,	Assistant.
CHARLOTTE M. MURKLAND,	Assistant.	FRANCES CLARK,	Assistant.
BLANCHE A. CHENEY,	Assistant.	SARA E. AMES,	Assistant.
BELLE F. BATCHELDER,	Assistant.	ALICE G. BARRETT,	Assistant.
AMY L. TUCKE,	Assistant.	ESSIE E. ROCHE,	Assistant.
MARIA W. ROBERTS,	Assistant.	E. BELLE PERHAM,	Kindergarten.
MARY E. WALSH,	Assistant.	EDITH A. ANDREWS,	Kindergarten.
CARRIE E. ERSKINE,	Assistant.	AMY R. WHITTIER,	Drawing.
MARY I. HOWE,	Assistant.	SARAH C. WHELTON,	Music.

Lawrence Division.

LEILA M. LAMPREY,	Principal.	EMMA J. GREENWOOD,	Assistant.
ELLA F. EASTMAN,	Assistant.	MARY E. MAHONEY,	Assistant.
ANNIE L. O'CONNOR,	Assistant.	ANNIE T. MCCARTHY,	Assistant.

IN GENERAL.

Nothing has occurred during the past year to interrupt the regular progress of school work. The total membership at the present time shows a slight increase, and the class graduated in June, 1904, was the largest since the school opened. It is gratifying to note that many of this class were offered positions to teach even before graduation, and that these offers were made through personal interview and actual appreciation of character and work.

The class entering in September, 1904, is also the largest in the history of the school, and has among its members a large number of special students who are teachers in the public schools of the city.

The normal and practice schools continue to work in perfect harmony, and the relationship between the two branches of work grows closer every year. The plan of having a period of observation work begin as soon as a pupil enters the school has given excellent satisfaction during its trial the past two years. This plan emphasizes the child as an object of study. The text-book has occupied the central position so long that this new point of view is a revelation to many students. It throws a new light on the meaning of education, and its influence is felt throughout the whole normal school course. During this observation period there is also a good opportunity for the department teacher to illustrate the progressive steps in teaching a given subject through the different grades. In English, for example, the literature is given to the children in the primary grades by means of story telling. These stories are dramatized, reproduced and illustrated by the children. It is a matter of satisfaction and interest to watch the effect of this work upon the spoken English and the reading of the pupils from the point of view both of word recognition and of expression. The children begin original writing in the third grade and write every day about matters of personal interest. The technical work in language is based on the needs as shown in these daily papers.

PRACTICE SCHOOLS.

There has been no change in the practice schools this year either in number of rooms or in plan of work. The three months of practice work required of each student before graduation is an important factor in our normal school course. This practice work is now done in graded city schools. In consideration of the fact that many of our graduates begin their work in ungraded country schools, it would be a valuable addition to our practice department could we obtain the use of one or two ungraded schools in the vicinity of Lowell.

The only serious defect in our practice school system is the meagre equipment of our Lawrence department. This fact is

made very evident by the following quotation from the report of the superintendent of schools: "The facilities afforded in our local training school are altogether too meagre for the accomplishment of the excellent work we outline. The building is old and inconvenient and incommodious. . . . I firmly believe that the General Court would provide for us in Lawrence a suitable building for this special practice work, provided the subject were properly presented before the members of that honorable body."

EXHIBITS FOR THE LOUISIANA PURCHASE EXPOSITION.

During the year the pupils of our practice school prepared two exhibits for the Louisiana Purchase Exposition, — one representing our kindergarten department and the other our history department.

The history exhibit represented the work of the children in the practice school and consisted of specimen work chosen from every room in the primary and grammar grades. The work from the primary grades was chosen to illustrate our belief that the child enjoys helping to create his own historical concepts, and consisted of paper-cuttings, paintings and drawings. The work from the early grammar grades illustrated our belief that objective history should precede subjective history, and included illustrated papers upon Greek, Roman and United States history. In the eighth and ninth grades, where the constitutional history of England and the United States is the course followed, the exhibit included the results of historical study in correlation with geography, art and literature, as well as specimens of personal intensive work on the part of the pupils.

The written papers were chosen from the children's first draught and all work as presented was typical of school products rather than work developed under any special stimulus for the exhibition. Many interesting photographs were taken especially for the exhibit, showing the pupils in their class work.

CHANGES IN THE FACULTY.

At the close of the year, Dr. Lyman C. Newell and Miss Carolyn L. Morse tendered their resignations. The former

had been connected with the school since 1898 and the latter since 1901. Their resignations were accepted with regret, and with a just appreciation of the valuable services which they rendered the school. Dr. Newell is now professor of chemistry at Boston University, and Miss Morse was married in June to Prof. Paul M. Rea, of the University of Charleston, South Carolina.

Mr. Clarence M. Weed of the New Hampshire State College, and Miss Bertha J. Curtis, a teacher in the Bartlett school, were elected to fill the positions. The vacancy in the Bartlett school caused by the resignation of Miss Curtis has been filled by the election of Miss Bridget Smith, a graduate of Smith College.

LECTURES AND ENTERTAINMENTS.

The entertainments during the year have been of a varied nature, both instructive and enjoyable. The following program has contributed much pleasure to the school and its friends :—

Mr. James Hill, — The Formation of City Government.

Mr. E. A. Gilman, — two lectures on the Processes of Modern Picture Making.

Hon. James Lyford, — The Custom House.

Mrs. Lucia Ames Mead, — The Hague Conference.

Mr. Walter Sargent, — two lectures on Drawing in the Public Schools.

Prof. C. Lloyd Morgan, — The Instinct of Animals.

Mrs. Erving Winslow, — three readings, from "School for Scandal," "She Stoops to Conquer" and "Peg Woffington."

In the graduation exercises for the year a distinct innovation was made by assigning parts to members of the graduating class instead of to outside speakers. The different departments of school work were represented by original essays and black board illustrations, and the result as a whole was extremely successful.

The social life of the school continues to develop along pleasant and profitable lines. While there is no dormitory in connection with the school, we have yet to detect any deficiency in social life and influence. The school social club meets at

regular intervals throughout the year, and the junior track athletics and senior dramatics in the spring do much to foster the best kind of school spirit and loyalty.

STATISTICS.

The statistics for the school year ending Aug. 31, 1904, are as follows : —

1. Number of students for the year, 165.
2. Number in entering classes : junior, 60 ; senior, 3 ; special, 42.
3. Number of graduates for the year, 56.
4. Total number of graduates, 362.
5. Whole number of students admitted since the opening of the school, 654.
6. Average age of pupils admitted, 18 years, 8 months.
7. Of the entering class Middlesex County is represented by 16 towns, Essex County by 4 towns. Lowell furnishes 30 pupils ; Lawrence, 12 ; Lexington, 3 ; Methuen, 3 ; Winchester, 3 ; Andover, 2 ; Billerica, 2 ; Chelmsford, 2 ; Westford, 2 ; Woburn, 2 ; and Ayer, Burlington, Cambridge Haverhill, Tewksbury, Wamesit, Wilmington, West Newbury, North Walpole, N. H., 1 each.
8. Occupations of pupils' fathers : farmers, 12 ; merchants, 8 ; inspectors, 4 ; clerks, 4 ; laborers, 4 ; contractors, 2 ; janitors, 2 ; conductor, 1 ; motorman, 1 ; fireman, 1 ; mail clerk, 1 ; truant officer, 1 ; electrician, 1 ; physician, 1 ; bank teller, 1 ; manufacturer, 1 ; machinist, 1 ; currier, 1 ; cartridge moulder, 1 ; salesman, 1 ; stencil maker, 1 ; not reported, 20.

GEORGE H. CONLEY,

KATE GANNETT WELLS,

Board of Visitors.

STATE NORMAL SCHOOL, NORTH ADAMS.

FRANK FULLER MURDOCK, PRINCIPAL.

INSTRUCTORS IN THE NORMAL DEPARTMENT.

FRANK F. MURDOCK,	Psychology, pedagogy.
ROLAND W. GUSS,	Natural science.
LYMAN R. ALLEN,	History, geography.
ALVIN E. DODD,	Manual training.
ROSA E. SEARLE,	Mathematics, music.
MARY A. PEARSON,	Drawing.
ANNIE C. SKEELE,	Physiology, physical training.
MARY L. BARIGHT,	English, reading.

These teachers, excepting the principal, also teach and supervise in the training school.

INSTRUCTORS IN THE GRAMMAR AND PRIMARY DEPARTMENTS.

DONNA D. COUCH,	Principal.
School organization and management in the normal department.	
HARRIET P. RYDER,	Ninth grade.
ALTHEA E. HYDE,	Eighth grade.
MARY L. PERLEY,	Eighth grade.
HANNAH E. MAGENIS,	Seventh grade.
MAUD V. ELMER,	Seventh grade.
HANNAH P. WATERMAN,	Sixth grade.
MARY D. EMMOTT,*	Sixth grade.
EMILY D. STACY,	Fifth grade.
PERSIS SHERMAN,	Fifth grade.
F. A. CLARKE,	Fourth grade.
TERESA C. SULLIVAN,*	Fourth grade.
KATHERINE M. CLARK,	Fourth grade.
ANNIE M. MCKENZIE,	Third grade.
SUSAN G. LOMBARD,	Third grade.
EMMA H. TINGUE,	Second grade.
EDITH A. ROOT,	Second grade.
ANNIE J. LAMPHIER,	First grade.
JEANIE L. BURNS,	First grade.
EDITH C. SARGENT,	First grade.

INSTRUCTORS IN THE KINDERGARTEN DEPARTMENT.

ELIZA GRAEME GRAVES,	Principal.
Kindergarten philosophy in the normal department.	
GRACE M. THOMPSON,*	Assistant.
ANNIE BOYD,	Pianist.

Musical interpretation in all departments.

CHANGES IN TEACHERS.

At the close of the school year Miss Eva L. McConkey resigned to accept the principalship of the New Britain kindergarten department. She is succeeded by Mrs. Eliza Graeme

* The salary is paid wholly by the city.

Graves, formerly principal of the Willimantic kindergarten department. Miss Lilian S. Daniels resigned her position as assistant in the kindergarten to take charge of a kindergarten school near Philadelphia. In her place are appointed three young ladies, who remain a third year for advanced study of kindergarten principles and for responsible charge of classes. Miss Jessie Simonson resigned her position in the first grade because of ill health. Misses Agnes E. Walker and Susan A. Cleghorn were compelled by exigencies within their families to resign their work with us. Miss Persis Sherman of Natick succeeds Miss Walker and Miss Annie J. Lamphier of Newton Highlands succeeds Miss Cleghorn. Miss Sarah E. Bower has been granted a leave of absence of one year for study at Pratt Institute. Miss Katherine M. Clark has been appointed to serve during Miss Bower's absence. Miss Julia W. Swift resigned to accept charge of a private school in Pittsburg at a large increase in salary. Miss Annie M. McKenzie was appointed to fill the vacancy. Mr. Alvin E. Dodd of Pittsburg was appointed instructor in the manual arts.

TEACHERS' MEETINGS.

The professional growth of the school is stimulated by regular meetings of the whole faculty. At these meetings, which occur weekly and are social in their nature, topics relating to personal and professional development are carefully considered. The general meetings are the chief organizing, harmonizing influence. Department and individual conferences are even more frequent, and ensure careful and reasonable application of general principles. The co-ordinating effect of these various meetings is felt alike by teachers and students.

DORMITORY.

The value of Taconic Hall in producing fine social feeling cannot be too strongly stated. As much of variety and as much of quality are afforded as at any college, and the graces of womanhood appear at once in active, genial, beautiful effort, both in earnest work and cultured amusement.

REPAIRS.

It is recommended that a special appropriation be made for painting all the tin roofs; for renewing conductors; for painting all outside woodwork; for papering and painting walls in the dormitory; for completing steps at the west entrance of school building; for steps completing the approach planned for the dormitory; for steps connecting the driveway about the school building with Lawrence Avenue; for repairing and extending concrete driveway; for improving the strip of land along the south end of the lot; for a new hot-water tank; for a receiving tank and pump to return water from steam pipes of school building to the boilers; for shrubs and trees.

STATISTICS.

Statistics for the year ending Aug. 31, 1904, are as follows:—

1. Number admitted in September, 1903: regular courses, 35; special courses, 9,—all women. Whole number enrolled during the year, 111. Number of graduates, 28.

2. Average age of entering class, 19 years, 9 months.

3. Whole number of students who have been members of the school, 456.

4. Number of students from Massachusetts: Berkshire County, 61; Franklin County, 23; Worcester County, 3; Hampden County, 5; Hampshire County, 2; Plymouth County, 2; Bristol County, 1; Suffolk County, 1; Middlesex County, 1. Vermont, 8; New York, 2; Maine, 1; Connecticut, 1. Cities and towns represented: Massachusetts, 44; scattering, 11.

5. Occupations of parents: farmers, 25; merchants, 12; mill operatives, 5; contractors, 4; carpenters, 4; engravers, 3; foremen, 3; blacksmiths, 3; bookkeepers, 2; machinists, 2; milkmen, 2; hotel keepers, 2; railroad conductors, 2; manufacturers, 2; dress-makers, 2; laborers, 2; painter, street railway employee, crossing watchman, harness maker, decorator, dyer, engineer, market gardener, landscape gardener, mechanical engineer, mason, shipping clerk, undertaker, teacher, clergyman, tailor, each 1.

CLINTON Q. RICHMOND,
ALBERT E. WINSHIP,

Board of Visitors

STATE NORMAL SCHOOL, SALEM.

WALTER P. BECKWITH, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

WALTER PARKER BECKWITH,	Theory and practice of teaching, history of education.
ELLEN MARIA DODGE,	English literature.
HARRIET LAURA MARTIN,	Algebra, geometry.
JESSIE PUTNAM LEAROYD,	Botany, English.
CHARLES EUGENE ADAMS,	Physics, chemistry.
CHARLES FREDERICK WHITNEY,*	Drawing.
WILLIAM CHARLES MOORE,*	Geology, geography.
MARY ALICE WARREN,	Biology, physiology, physical training.
ISABELLA GERTRUDE KNIGHT,†	Library.
GERTRUDE BROWN GOLDSMITH,	Biology, psychology.
FANNIE BOUTELLE DEANE (secretary),*	History, English.
SARAH LOUISE BAKER,*	English literature, arithmetic.
HELEN HOOD ROGERS,*	Reading, physical training.
CASSIE LUCRETIA PAINE,*	Critic.
FRED WILLIS ARCHIBALD,*	Music.
FRANCES S. BECKWITH,	Library.

MODEL SCHOOLS.

MAUD SARAH WHEELER,	Fifth to eighth grades.
MABEL TOWNE BURNHAM,	Fifth to eighth grades.
MAUDE MULLER BRICKETT,	Fifth to eighth grades.
BESSIE JORDAN WELCH,	Fifth to eighth grades.
MABEL LUCILE HOBBS,	Fourth grade.
MARY ELIZABETH JAMES,	Third grade.
DELIA FRANCES CAMPBELL,	Second grade.
HELEN MERRILL DILLINGHAM,	First grade.
LOUISE FARRINGTON,	Kindergarten.
ALICE M. WYMAN (assistant),	Kindergarten.

The year ending July 1, 1904, was of special interest, as completing the first half-century of the existence of the school. Its close was celebrated by a public meeting, held at the school building, on the afternoon of June 30. On this occasion the audience was welcomed by the principal of the school and the chairman of the board of visitors acted as the presiding officer. The chief address was a most thoughtful and instructive one, — the subject being “The Relation of Modern Industry to Intellectual Development,” and the speaker, Hon.

* These teachers also teach, or directly supervise, portions of the teaching in the model schools.

† Absent on leave this year.

Carroll D. Wright, late United States Commissioner of Labor, now president of the collegiate department of Clark University. Other addresses were given by Hon. Herbert Parker, Attorney-General, representing the Commonwealth, Hon. Joseph N. Peterson, mayor, representing the city of Salem, and Hon. George H. Martin, secretary of the Board of Education. The occasion was further made memorable by the presence, in surprising physical vigor and in unimpaired mental power, of Dr. Richard Edwards, the first principal of the school, who was welcomed with great enthusiasm, and whose eloquent and inspiring words were one of the chief elements in the success of the meeting. Music was furnished by a volunteer chorus from the students of the school under the direction of Mr. Fred W. Archibald.

On July 1 the triennial reunion of teachers and students was held. Over 800 persons were present, — an attendance which is believed to be unparalleled in the history of such gatherings. The exercises were largely informal, — the principal of the school gave an address of welcome, hymns written for the occasion by former students were sung, and the spacious gymnasium was crowded at the noon hour for the collation. The special features of the meeting were the presentations, — a beautiful bronze memorial tablet, in honor of Dr. Daniel B. Hagar, for thirty-one years principal of the school, purchased from contributions gathered for this purpose from his students, and pictures, ten in number, in memory of Miss Elizabeth Weston and Miss Harriet D. Allen, honored and faithful teachers. The tablet, bearing a brief inscription, is placed in the main hall, where it will always face the students as they gather to their daily work. The pictures are divided between the room now occupied by the senior teacher of the school — these being in memory of Miss Weston — and the room in which Miss Allen did her work. Two figures, representing classical subjects, also in memory of Dr. Hagar, have likewise been placed in the main hall by the class that graduated in January, 1877. The various words of presentation were beautifully spoken by Mrs. Mary (Cate) Smith, of the class of June, 1878, Mrs. Martha (Kingman) Crosby, the widow of the second principal of the school, and herself for many years

a teacher here, and Mrs. Marion (Newell) Potter, of the class of 1900.

The total enrolment of students during the year was 204, of whom all but 10 were pursuing the usual elementary course. At the end of the year the graduating class numbered 90, and 8 received certificates for the completion of a year of special work.

The end of the year finds necessary the smallest number of changes in the teaching force that has occurred in some time. The year's term of Miss Alice M. Kyle as a special assistant expired, and no appointment was deemed necessary in her place. Miss Isabella G. Knight, librarian, asked and received a year's leave of absence, and Miss Frances S. Beckwith of Salem, a recent graduate of Vassar College, was made her substitute. Miss Helen L. Gray, assistant in the kindergarten, resigned, and Miss Alice M. Wyman of Boston was appointed in her place.

The work of the school has gone along prosperously, harmoniously and effectively. The conditions in the model school, from an administrative standpoint, have been much improved. The appointment of the critic teacher, who conveniently and easily assumes the executive duties necessitated by these schools, has been a most useful and helpful change. There was never so thorough an understanding between the city school committee and the normal school, and the growth of understanding has promoted harmony. The existence of these schools is a mutual benefit to the city of Salem and to the normal school, and the absence of occasions of hostility and unfriendliness is a reason for hearty congratulation. Progress is constantly being made in articulating the work of the normal and model schools, and the additional changes now desirable are not numerous. It is not desired to organize so minute a "system" that the personal element of the teacher's work will be obliterated, or even made inconspicuous. Such a result would be injurious both to the pupils in the model schools and to the ideals which we encourage the normal students to cherish.

One of the most gratifying developments of our recent experience is the great increase within the past two years of direct calls upon this school by superintendents of schools for

the recommendation of teachers. We believe that a very large part of the work now done by teachers' agencies might be much better done by the normal schools; the tendency to utilize the normal schools more and more for this purpose is, therefore, one that we gladly welcome. Mistakes will be made, and misfits will still occur, but when it comes to placing beginners in the positions of their greatest usefulness the normal school has one of its most useful and natural services to render.

Testimony should be given in regard to the practical working of the rule requiring physical examination of candidates. It operates, we think, chiefly in a negative way, and prevents those from applying for admission who are manifestly unfit subjects. Certainly we receive a smaller proportion of weak and feeble students than was formerly the case. It is not desirable, perhaps, to attempt to secure results too suddenly, but we are very confident of the good effects of the slight efforts already made in this direction.

The meagre compensation still received by so many teachers is a serious obstacle in the way of filling the normal schools with the quality of students desirable from every point of view. The steps necessary to remove this obstacle can only be taken by the public; if the people honestly and heartily desire their schools to be taught by the choicest spirits among our young women, that result can easily be attained.

Every year shows evidence of a greater willingness, on the part of high school principals, to co-operate with normal schools in bringing to their membership the desirable kinds of candidates, and, what is almost equally helpful, in keeping away those who are not promising. Some high schools have still the mistaken idea that a pupil who is not fitted for anything else may safely be encouraged to go to a normal school; but the past five years have marked a vast improvement in this respect. Communities must have constantly impressed upon them that they get back as teachers, from the normal schools, such a quality of personality and attainment as they have sent to the normal schools.

STATISTICS.

1. The whole number of students in attendance for the year ended July 1, 1904, was 204. Of these, 104 came from Essex County, 76 from Middlesex, 13 from Suffolk, and 1 from Plymouth. From the

State of New Hampshire there were 7, from Vermont 2 and from Washington 1. The whole number of students attending the school since its opening in September, 1854, was 4,976.

2. The number of new students admitted to the school during the year was 90, of whom 82 became members of the junior class, and 8 were special students. Among these there were 12 who had had experience in teaching, besides several others who had done a few weeks' work each in summer vacation schools. Of the new students, 13 came from Cambridge, 10 from Lynn, 6 each from Salem and Malden, 5 from Chelsea, 4 from Amesbury, 3 each from Beverly, Haverhill, Peabody and Somerville, 2 each from Medford, Groveland, Andover, Woburn, Merrimac and Everett, and 1 each from Arlington, Saugus, Ipswich, Topsfield, Wakefield, Gloucester, Manchester, Boston, Reading, Lynnfield, Plymouth, North Reading, Marblehead and Melrose. There were also 6 from New Hampshire and 2 from Vermont. The average age of the members of the junior class, at the opening of the school year, was 18 years, 9.3 months.

3. The occupations of the fathers of the new students were as follows: mechanics, 26; merchants and salesmen, 13; farmers, 9; manufacturers, 6; policemen, 5; janitors and watchmen, 4; foremen and superintendents, 5; railroad and transportation employees, 4; laborers, 4; contractors and clerks, 3 each; teacher, electrician, sexton, coachman, engineer, nurse, proof-reader and soldier, 1 each.

4. The number of graduates June 21, 1904, was 90, and 8 candidates received certificates for the completion of a year's special work. The whole number of graduates for fifty years has been 2,703, and the number of certificates granted for a year's work has been 36.

WALTER P. BECKWITH,

Principal.

STATE NORMAL SCHOOL, WESTFIELD.

CLARENCE A. BRODEUR, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

CLARENCE A. BRODEUR,	School law, school economy and principles of teaching.
LOUIS B. ALLYN,	Arithmetic, physics and chemistry.
EDITH L. CUMMINGS,	Manual training and gymnastics.
FREDERIC GOODWIN,	Vocal music.
Mrs. ADELINE A. KNIGHT,	English and history.
WILL S. MONROE,	Psychology, history of education and geography.
GEORGE T. SPERRY,	Drawing.
CHARLES B. WILSON,	Natural science.

INSTRUCTORS IN THE TRAINING SCHOOL.

GEORGE W. WINSLOW,	Principal.
ALICE M. WINSLOW,	Eighth grade.
M. HARRIET DAY,	Eighth grade.
ANNA M. DOWNEY,	Seventh grade.
MARION R. WINKLEY,	Seventh grade.
LUCIA A. COLEMAN,	Sixth grade.
ELLA J. DOWNEY,	Sixth grade.
EDITH M. ROBBINS,	Fifth grade.
FRANCES L. PARSONS,	Fifth grade.
E. ABBE CLARK,	Fifth grade.
ELIZA CONVERSE,	Fourth grade.
FRANCES L. FOSTER,	Third grade.
FLORENCE P. AXTELLE,	Second grade.
EUNICE M. BEEBE,	First grade.
EMMA L. HAMMOND,	Kindergarten.

THE FACULTY.

During the past year the normal school at Westfield has had two changes in the personnel of its faculty. In June, 1903, Miss Edith S. Copeland, teacher of drawing, was granted leave of absence for one year for study abroad. During the year thus granted Miss Copeland decided to give up her position in the normal school and continue her studies. She came to Westfield in September, 1894, and for nine years gave to her work unremitting study and painstaking effort. Mr. George T. Sperry, a graduate of the Normal Art School at Boston, and an experienced supervisor of public school drawing, was elected substitute teacher of drawing for the year beginning

Sept. 1, 1903. On receipt of Miss Copeland's resignation, Mr. Sperry was given permanent charge of the work he had carried on so successfully as a substitute.

On April 20, Mr. Sterrie A. Weaver, teacher of vocal music died at his home in Westfield. Mr. Weaver was a man of strong personality and an inspiring teacher. He had been supervisor of music in the public schools of Westfield for sixteen years, and had taught in the normal school since 1899. He was a graduate of the New England Conservatory of Music and had studied abroad; was the author of the Weaver Individual Method of sight singing, the conductor of a successful summer school of music, and at the time of his death he was president of the music section of the National Educational Association. In October, 1904, Mr. Frederic Goodwin was elected to succeed Mr. Weaver, and under his direction the work in music is now being presented.

The year has been one of general prosperity. The number of students has not materially changed, there has been no radical departure in the methods or spirit of the school, the public confidence was never more satisfactory, and there is evidence of advance in all professional features of the school.

The reunion of the alumni in June was unprecedented in attendance and enthusiasm, due largely to the national prominence of the orator of the day, George B. Cortelyou of Washington, and to the admirable arrangements through the principal.

In June there was an exhibit of portraits and letters of the leading educators of Europe and America, past and present, which deserves especial commendation. One of the teachers, Mr. Monroe, has a large and rare collection of both portraits and letters, undoubtedly the best in this country, and in the exhibit they were classified and a biographical sketch and personal correspondence accompanied each photograph.

STATISTICS.

1. Number of pupils admitted to the Westfield Normal School since its organization, 4,637. Number graduated since 1855, 1,856. Number graduated in June, 1904, 49 women. Present number of pupils, 119. Number examined for admission in 1904, 65. Number

rejected or who did not enter, 11. Number entering in September, 1904, 54.

2. Average age of pupils admitted in 1904, 18 years, 9 months, 6 days.

3. Residences, by counties, of those who entered in September, 1904: Bristol County, 1; Franklin County, 1; Hampden County, 30; Hampshire County, 16; Suffolk County, 1; Worcester County, 4; from New Hampshire, 1; total number, 54.

4. Residences, by towns, of those who entered in September, 1904: Amherst, 5; Barre, 2; Belchertown, 1; Boston, 1; Chester, 1; Chicopee, 1; Claremont (N. H.), 1; Easthampton, 2; Fall River, 1; Gardner, 1; Hatfield, 1; Holyoke, 5; Leverett, 1; Monson, 2; Montgomery, 1; Northampton, 2; North Brookfield, 1; South Hadley, 1; Springfield, 8; Ware, 3; Westfield, 9; West Springfield, 2; Wilbraham, 1; Williamsburg, 1; total number, 54.

5. Occupations of parents: clergymen, 1; clerks, 5; farmers, 9; laborers, 13; mechanics and machinists, 3; merchants and traders, 12; printer, 1.

ALBERT E. WINSHIP,

CLINTON Q. RICHMOND,

Board of Visitors.

STATE NORMAL SCHOOL, WORCESTER.

E. HARLOW RUSSELL, PRINCIPAL.

INSTRUCTORS.

E. HARLOW RUSSELL,	Theory and art of teaching, reading, psychology of childhood.
REBECCA JONES,	Elementary methods, supervision of apprentices, sewing.
HELEN F. MARSH,	Music, drawing.
ARABELLA H. TUCKER (clerk),	History of education, botany, penmanship.
OLIVE RUSSELL,	Assistant kindergartner.
ANNA P. SMITH (librarian),	Mathematics, supervision of apprentices.
AMY L. BOYDEN,	Teacher of primary classes, elementary methods.
HENRIETTA A. MURRAY,	Gymnastics, school games.
FRANK DREW,	Physiology, psychology, principles of teaching, nature study.
HORACE G. BROWN,	Literature, English grammar, history.
EDWARD L. SUMNER,	Choral singing.
ROBERT S. BALDWIN,	Civil government, English.
FANNIE L. PLIMPTON,	Head kindergartner.
LEE RUSSELL,	Chemistry, mineralogy, supervision of apprentices.
ROBERT M. BROWN,	Geography, mathematics.

Ample facilities for observation and practice (apprenticeship) are afforded in the public schools of Worcester, the Memorial Hospital and the Worcester County Truant School at Oakdale.

IN GENERAL.

There is little that is new or unusual to record in the history of this school during the past year. The attendance has fallen a little below that of a few years past, without apparent cause; but the class admitted in September is considerably larger than that of a year ago, and the demand for graduates is undiminished. The school appears to be in a thoroughly healthy condition, physically and intellectually, and does its work efficiently and without friction.

The recent enlargement of our means of instruction in science by the addition of two laboratories has obviously rounded out the course of study into better proportions; and the voluntary lengthening of the training period to a full year certainly enables our graduates to secure more responsible positions, and to do better work from the start.

In May and June, as our senior class nears the time of graduation, school superintendents from far and near come to us in considerable numbers to make selections for expected vacancies, with the result that an increasing proportion of each graduating class, before receiving their diplomas, are already engaged to teach in the fall.

THE FACULTY.

All the instructors reported last year remain in service, and the staff has been strengthened by the appointment of Mr. Robert M. Brown as instructor in geography and mathematics. Mr. Brown is a bachelor of arts of Brown University, and a master of arts of Harvard, with an enviable record as a scholar and teacher.

PROPOSED DINING HALL.

The school is in need of boarding accommodations, both for students and teachers, such as have been recently provided for the schools at Fitchburg and North Adams, which are similarly circumstanced. The small dormitory, built a dozen years ago in the expectation that students having rooms there could readily get their meals near by, was immediately filled up with lodgers, who, however, soon began to find difficulty in procuring table board in the neighborhood,—a difficulty which has steadily increased, the lodgers having been obliged to seek their meals at greater and greater distances, until the inconvenience has at length practically emptied the dormitory of students. The normal school is located in a quarter of the city that is not quite up to the requirements necessary for homelike boarding-places in numbers sufficient for our teachers and students, and this unfortunate disadvantage is not likely to be removed or diminished in the near future; it is, in fact, rather on the increase. In order, therefore, to make available the accommodations for lodging already provided in the dormitory, and to afford our students and teachers such advantages for residence and study as are offered in neighboring normal schools, it is clearly necessary to arrange for giving them meals as well as rooms.

Without great outlay, a building of moderate size could be erected, either attached to or conveniently near the present dormitory, adapted, perhaps exclusively, to the preparation and serving of meals, with accommodations for housekeeper

and servants, which would serve our purpose and enable us to offer to the considerable number who desire it a satisfactory boarding-place, here in the privacy and beauty of our own ample grounds and under the protection and oversight of the principal and several of the teachers.

It should be added that this step was contemplated as a future possibility when the dormitory was built, twelve years ago, and a convenient site was reserved for such a dining-hall. The need has now become apparent and to a degree urgent, and the school will continue to be behindhand in its equipment until the need is adequately met.

THE EXHIBIT AT ST. LOUIS.

In arranging for the normal school exhibit of the Commonwealth at the Louisiana Purchase Exposition, it was decided, in order to avoid the labor and expense of needless repetition, for each of the ten normal schools to show only certain of its features. Six such features were selected as prominently characteristic of the school at Worcester, namely: (1) the library and its administration; (2) child study, — observation of children; (3) “larger” kindergarten material; (4) the platform exercise, — oral expression; (5) apprenticeship, — practice teaching; (6) graduates’ class reunions. The exhibition consisted of photographs, models, illustrative specimens, etc., which were fully explained in six carefully prepared, descriptive pamphlets, abundantly illustrated by half-tone engravings.

Mr. George E. Gay, director of the Massachusetts Educational Exhibit, reports that the above-named features attracted much attention from educational experts.

“THE GRADUATES’ RECORD.”

It has been the policy of this school from the beginning to maintain a close and cordial connection with its graduate body, and the graduates in turn manifest an enduring interest and loyalty towards the school. They early organized an association, to give form and expression to this spirit, as well as to cherish and enjoy social relations with one another.

In 1895 a thin volume was published, which served as at once a history and directory of the association, and during the present year a revised and enlarged edition of this “Record”

has been compiled and issued by the secretary, Miss Arabella H. Tucker, who is also a member of the faculty of the school. It is a modest but comely volume of about 200 pages, embellished with half a dozen or more appropriate illustrations, containing a brief history of the school, a list of its officers and teachers, and an individual record, alphabetically arranged, of every one of the 1,093 graduates down to the present year (1904).

It should be added that the cost of printing and distributing the book is most cheerfully borne by the association.

ANNIVERSARY ADDRESS.

The occasional or anniversary address at the graduation exercises in June was given by Hon. George H. Martin, A.M., secretary of the State Board of Education, and was a practical, vigorous and timely production, gratefully appreciated by all who listened to it.

STATISTICS.

The subjoined statistics afford additional information with regard to certain features of the school:—

1. Number of different students for the year 1903-04, 142.
2. Number admitted in September, 1904, 53. Number admitted since the opening of the school in 1874, 1,878.
3. Average age of pupils last admitted, 18 years, 7 months.
4. Residences of pupils last admitted, Worcester County, 52; Middlesex County, 1; total, 53.
5. Occupations of pupils' parents: mechanics, 23; farmers, 6; merchants, 5; contractors, 3; clerks, 2; coachmen, 2; painters, 2; overseers and foremen, 2; policemen, 2; real estate dealer, caterer, manufacturer, letter carrier, teamster, lawyer, 1 each; total, 53.
6. Number in the graduating class, June, 1904, 42. Number of graduates since 1876, 1,093.
7. Average age of the last graduating class, June, 1904, 21 years, 10 months.
8. Library: reference books reported last year, 6,469; volumes added the present year, 462; total, 6,931. Text-books reported last year, 7,535; volumes added the present year, 289; total, 7,824. Whole number of volumes in the library, 14,755.

E. H. RUSSELL,

Principal.

STATE NORMAL ART SCHOOL, BOSTON.

GEORGE H. BARTLETT, PRINCIPAL.

INSTRUCTORS.

GEORGE H. BARTLETT,	Lecturer on historic ornament, principles of design in nature, drawing for illustration, process engraving, blackboard illustration.
ALBERT H. MUNSELL,	Drawing and painting from the antique figure and living model, composition, artistic anatomy.
EDWARD W. D. HAMILTON,	} Drawing and painting from the antique figure and living model, composition.
ERNEST L. MAJOR,	
JOSEPH DECAMP,	Painting from the living model, portraiture.
ANSON K. CROSS,	} Free-hand drawing, light and shade, perspective, model drawing theory.
RICHARD ANDREW,	
MERCY A. BAILEY,	Light and shade drawing from animal form, water-color painting from still life.
VESPER L. GEORGE,	Design, free-hand drawing, light and shade.
LAURIN H. MARTIN,	Applied design, laboratory work.
GEORGE JEPSON,	Descriptive geometry, mechanical drawing and laboratory work.
CYRUS E. DALLIN,	Modeling from antique and life, composition.
ANNIE E. BLAKE,	Modeling and casting, design in the round.
RALPH E. SAWYER,	Building construction, architectural drawing and design.
MARY G. BATCHELOR,	Teaching exercises, graded illustrative work, drawing in relation to other studies.
JOHN L. FRISBIE,	Ship draughting.

GENERAL SCOPE OF THE SCHOOL.

Though the school is unique in being the only *State* Normal Art School in the country, it claims no pre-eminence; for its value is to be tested by its general scope rather than by the peculiar excellence of this or that department. It is neither a school for portraiture nor for sculpture, neither for arts and crafts nor for architecture; but, starting from the basis of mechanical drawing, it aims to give enough of an all-round logical education in art to enable its pupils to be successful teachers of drawing or to have so discovered their various aptitudes that they may select one or another line of art as theirs.

WORK IN ENGLISH.

Raising the standard of examination in drawing, and adding to it written examinations in English, elementary botany and physiology, has increased rather than lessened the number of

pupils. Their regular work in English, which is always related to some subject connected with art, by making them aware of their limitations in thought and expression is aiding them to acquire ease in giving a lesson before their fellow students, in teaching elsewhere in their practice work and in taking charge of their own classes upon graduation. Thus are they enabled to realize that speech and drawing supplement each other as modes of expression.

MANUAL TRAINING.

Within the last year we have been obliged to give to our pupils more manual training in what is called sloyd, since many towns of the State require that the instructor of drawing shall also be able to teach sloyd. It is thus that the school endeavors to keep in line with any legitimate tendency of the day, while resolutely opposing the use of any one medium, form or mannerism to such an extent as to be out of harmony with the true spirit of progressive art.

It has also become necessary to engage a pattern-maker for a short course of lessons, as under the able instruction of Mr. George Jepson in mechanical drawing this next step is imperative towards that complete development of the teacher to which we have alluded.

EXHIBIT AT ST. LOUIS.

The exhibit of this school at St. Louis was early set up under the personal supervision of its principal, and as a part of the Massachusetts group of schools received much favorable comment. A gold medal was awarded for a special exhibit.

REPAIRS AND IMPROVEMENTS.

The need of increased space for the various departments of the school becomes more evident each year. Last winter we were compelled to use the library as a studio, and a small office as a library, while lockers were relegated to corridors.

The present pressing need of the school building is renovation. It is many years since the interior has been painted. The walls of an art school are exposed to rougher treatment than are those of an ordinary school.

We need also an electric plant, that we may not be obliged longer to depend upon gas for our artificial lighting.

EVENING CLASSES FOR TEACHERS.

With electric lighting it would be practicable to have evening classes for teachers, which could be established without relieving towns and cities of ten thousand inhabitants of the obligation to provide night schools. The art school should establish such classes, primarily, to help teachers, who are so engaged in the day time that they cannot avail themselves of the opportunities which the art school offers during its day sessions. Excellent as is most of the instruction given at present in local evening schools, it is difficult for it to attain to a very high specific excellence on account of the large number of students who frequent the classes with no intention of becoming teachers. Should persons other than teachers apply for admission to the evening classes proposed for the art school they should be admitted only by special consent.

Whether or not the art school can put itself in line with the rightfully growing feeling among all classes of citizens that school buildings should be in use day and evening, and that they belong to the State or city for the service of all its peoples, is chiefly a question of finance. The expense would be almost wholly confined to the items of salaries and lighting; and as the attendance should be limited to professional teachers the cost involved would be comparatively small, while relatively to the high grade instruction that could be given it would be reduced to the lowest minimum.

If this development in the purpose and work of the school could be effected, the resulting gains would prove its expediency.

BEQUEST.

The art school has received a bequest of \$1,500 from the estate of Robert C. Billings through one of his executors, Mr. Thomas Minns, "the income" of which is to be used "for needy and deserving pupils."

STATISTICS.

The statistics for the school from Sept. 22, 1903, to June 23, 1904, are as follows : —

1. Total number of students, 365, — males, 68 ; females, 297. Number in attendance at the present time (Nov. 19, 1904), 344.

2. Average age of students, 22.5 years.

3. Graduates in June, 1904 : public school class, 23 ; class in mechanical drawing, 6 ; class in modeling and design in the round, 9 ; class in drawing, painting and composition, 5 ; total, 43.

4. Appointments since Nov. 1, 1903, of past pupils to be teachers and supervisors of drawing, which have been reported to date (Nov. 19, 1904), 56.

5. Number of students from the several counties of the State : Barnstable, 2 ; Berkshire, 5 ; Bristol, 6 ; Essex, 38 ; Franklin, 2 ; Hampden, 7 ; Middlesex, 108 ; Nantucket, 1 ; Norfolk, 21 ; Plymouth, 8 ; Suffolk, 134 ; Worcester, 23 ; total, 355. Students from other States are distributed as follows : Maine, 3 ; New Hampshire, 2 ; Connecticut, 2 ; Vermont, 1 ; Minnesota, 1 ; Canada, 1 ; total, 10. Total from other States and Massachusetts, 365.

6. Occupations of fathers of students : professions, 22 ; insurance, 10 ; manufacturers, 14 ; contractors and builders, 17 ; merchants and traders, 33 ; farmers, 12 ; teachers, 3 ; commercial business, 8 ; mechanics, 21 ; other callings, 128 ; total, 268. Deceased, 78 ; retired, 19 ; total, 365.

KATE GANNETT WELLS,
GEORGE H. CONLEY,
CAROLINE HAZARD,

Board of Visitors.

STATE NORMAL SCHOOLS.

Table showing admissions and attendance for 1904, with other normal school data.

NORMAL SCHOOLS.	TEACHERS IN NORMAL SCHOOLS.		TEACHERS IN MODEL AND PRAC- TICE SCHOOLS.		Examined in 1904 for admission.	ADMITTED TO —		NUMBER OF DIFFERENT STUDENTS FOR 1903-1904.			ATTENDANCE DEC. 1, 1904.			Number of gradu- ates in 1904.	Different students from the begin- ing.	Graduates from the beginning.
	Men.	Women.	Men.	Women.		Entering class.	Higher or special classes.	Men.	Women.	Totals.	Men.	Women.	Totals.			
Bridgewater, . . .	7	9	1	12	188	116	12	30	226	256	29	226	255	105	5,397	3,533
Fitchburg, . . .	4	7	3	17	43	51	10	2	116	118	1	132	133	52	522	255
Framingham, . . .	5	10	-	8	130	121	2	-	188	188	-	196	196	84	4,282	2,482
Hyaunia, . . .	3	4	1	6	18	23	3	4	33	37	7	33	40	15	263	121
Lowell, . . .	3	8	1	25	104	60	45	1	164	165	1	184	185	56	654	362
North Adams, . . .	4	4	-	22	55	41	7	-	110	110	-	88	88	28	393	204
Salem, . . .	5	10	-	10	143	88	7	2	202	204	2	194	196	75	5,072	2,703
Westfield, . . .	6	2	1	14	87	53	15	1	144	145	2	117	119	49	4,637	1,856
Worcester, . . .	7	5	-	3	73	54	-	2	140	142	2	138	140	42	1,879	1,093
Normal Art (Boston), . .	13	3	-	-	96	89	2	68	297	365	66	279	345	43	3,165	1,226
Totals, . . .	57	62	7	117	937	696	103	110	1,620	1,730	110	1,587	1,697	549	26,264	13,835

SIXTY-EIGHTH ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

SECRETARY'S REPORT.

To the Board of Education.

The sixty-eighth report of the secretary is herewith respectfully submitted.

Considering the people of Massachusetts as engaged in the business of education, the following is a condensed account of the work.

At Public Expense.

Number of persons under instruction : —

In elementary schools,	450,467
In high schools,	43,575
In kindergartens,	15,093
In evening schools,	43,780
In vacation schools,	11,993
In normal schools,	1,730
In schools for defectives,	1,016
In schools of reformation,	1,822
Number of teachers employed in all schools, except the last two, . .	18,477
Number of superintendents employed,	187
Total expenditure for all public school purposes,	\$16,436,668 35

At Private Expense.

Number of persons under instruction : —

In private schools,	82,771
In academies,	5,657
In colleges and technical schools,	5,518
In commercial and business schools,	3,908
In evening classes of young men's Christian associations and unions,	4,062

Besides these a large number of persons are under instruction in classes maintained and conducted by churches, charitable societies and women's clubs. These are day, evening and vacation classes, and many of them are giving industrial training of one sort or another.

This survey indicates and partly measures the popular belief

and interest in education, and shows how broad is the conception of social obligation. I desire to point out how this interest has been created and maintained.

THE SCHOOL POLICY OF MASSACHUSETTS.

Massachusetts has no State system of education nor any approach to one. In this respect it is unique among the States. As people look at it this is its glory or its shame. There is no State university, no prescribed course of study, elementary or secondary, no State system of text-books, no State superintendent of public instruction, no State certification of teachers, no appellate jurisdiction outside of the ordinary courts of law. Some of these features are found in each of the other States; nearly all of them are found in some of the States.

To say that Massachusetts has no State system of education is not equivalent to saying that it has no educational policy. It has a policy which it has consistently adhered to since the beginning of its colonial life. This policy has been so completely inwrought into the practice and sentiment of the people as to make them sensitive and suspicious in view of any seeming departure from it.

The State has from the beginning thrown the responsibility for the education of its children and youth, as to quality and amount, primarily upon the parents, secondarily upon the local communities, the towns and cities. It fixes by law certain minimum requirements; but to these laws, with a few exceptions, it affixes no penalties, and for them it designates no special prosecuting authority and establishes no special tribunals. This is in marked contrast to the elaborate school codes existing in some of the States.

Throughout the history of Massachusetts, legislation has followed local initiative. Towns have of their own motion adopted school policies for themselves. When their right to do this has been questioned, the Legislature has legalized the practice. When the practice, by wide adoption and general approval, has been proved to be wise, the Legislature has gone a step farther and made its adoption compulsory. The State permitted towns to form school districts, and it first permitted and then required their abolition. It permitted the towns for a

generation to choose school committees before it required them to do so. Towns were permitted to employ school superintendents for fifty years before their employment was made obligatory. The same course has been pursued with school studies and with the schools themselves. Many features of the modern local school systems are still in the permissive stage. Kindergartens, vacation schools, industrial schools, evening schools for all but the largest towns, evening lectures are all of this class. The subjects which must be taught are few; those which may be taught are many, — bookkeeping, algebra, geometry, foreign languages, the natural sciences, manual training, agriculture, sewing, cooking, vocal music, physical training, civil government and ethics.

The Constitution of 1780 declared it to be the duty of legislatures and magistrates, “in all future periods of this Commonwealth, to cherish the interests of literature and the sciences, and all seminaries of them.”

By the policy which it has consistently pursued, the State has encouraged the progressive and public-spirited citizens in every community to develop a generous local public sentiment in favor of education.

Since 1837 the State has undertaken to do more than encourage; it has offered to assist. By a wise policy of distribution, the State school fund, now approaching \$5,000,000, has made it possible for the poorest towns to offer to their children school opportunities more ample than the wealthy towns afforded a generation ago. By means of it, school terms have been lengthened and better teachers have been employed. The towns have been enabled to provide better buildings, to widen the range of studies, and to gather the scattered children into larger and better organized schools.

While the State requires that an opportunity for high school instruction shall be furnished to all children capable of profiting by it, it bears the burden of this added obligation by direct appropriations from its treasury to aid the poorer towns.

While the State requires the smaller towns to form unions for the employment of superintendents of schools, it pays from its treasury half the salary of these officers, and adds a liberal sum to increase the wages of teachers in these towns.

The machinery which the State has set up for carrying out its policy is simple in the extreme. For the first two hundred years there was no special machinery. It was left to each town to execute the general law in its own way and through such officers as it might choose, and most of the towns had no settled method of carrying on their schools. Sometimes they chose special committees for temporary purposes. More often they left the regulation of the schools to the selectmen, who counted it among their administrative duties.

Since 1826 the State has required the towns and cities to care for their schools through specially elected officers, — the school committee.

Pursuing its characteristic policy, the State has never defined with any completeness of detail the functions or the powers of these official bodies. The phrase contained in the original law of 1826, “the general charge and superintendence of all the public schools,” was so broadly interpreted by Chief Justice Shaw as to cover practically the whole field of school administration, and to make the school committees so independent that they are regarded with chronic jealousy by the other executive officers of the cities and towns.

In adopting and continuing this policy, the State has assumed that the people of each community would regard the education of their children as the supreme communal interest, and that they would intrust it to the most fit of their citizens, — men and women of culture, of breadth of view, of unselfish purpose, and of practical business sense. Beyond this the State has assumed that in each community there would be a body of wise and public-spirited people of responsibility and influence, who would at all times hold their communities up to a steadily rising standard of school conditions; who would steadfastly resist any open attacks which might be made upon the schools by persons of reactionary tendencies and all insidious efforts to use the schools for private and personal ends.

In these people was expected to reside the power behind the throne. They were to furnish the dynamic force by which the simple machinery should be operated. The energy of the machine would be measured by the intensity of this force. In other words, the schools would be just as good as the school

committee made them, and the school committee would make them as good as the people under the lead of their best wanted them to be. In the last analysis the responsibility for the school conditions in any community was made to rest upon the men of standing, of influence, of weight. These people would need neither the directing voice nor the heavy hand of law to guide or impel them toward the right and the best. They would need only the permissive authority of the State to support them in making new and progressive departures.

The history of the towns has fully justified the wisdom of the policy. By the annual reports of the school committees and the discussions in the town meetings, the popular interest has been maintained and the school standards elevated.

To the simple local machinery of the past, the State has recently added a subordinate and special executive officer in the person of a superintendent of schools, who is to have the care and supervision of the schools, under the direction and control of the school committee.

By the restriction contained in the last phrase, the ancient policy is maintained and the school committee is shorn of none of its powers and relieved of none of its responsibilities. The State has simply recognized the fact that under the changed conditions of civil life education has become a more complex process than it used to be, and that a system of public schools, to be effective, must have the same kind of expert service that has been found necessary in all other public and private affairs of any magnitude. But it has left each school committee to determine for itself the scope and limit of the functions of its executive. Here, too, it expects the people to bring their influence to bear, that the work of the superintendent shall not be so narrowly restricted or so hampered by petty interferences that his usefulness shall cease.

The policy of the State was not altered by the establishment in 1837 of the Board of Education. At the time, the action of the State excited fear, and the Board itself was regarded with suspicion and distrust. But the purpose of the State was to support its original policy by affording aid to the people in the towns on whom the State was depending for the maintenance of the school standards. The Board of Education was

not to take charge of the schools but to assist those who had them in charge by information and advice. It was to furnish facts and theories and arguments which the leaders of public sentiment in the towns might use in their efforts to overcome local apathy and opposition.

The Board was to gather and publish school statistics, that each town and city might see itself in comparison with its sister communities, and that a generous rivalry might be created which should result in a general school uplift.

The Board from its higher vantage ground, with its outlook over the whole State, was to see when the encouragement of new law was needed, and when the time had come for "shall" to take the place of "may."

I have sketched the policy of the State, though only in outline, because many people seem to be ignorant concerning it, and because there seems to be a growing disposition in some quarters to seek a change.

The Board of Education is thought to be a court of appeal, with power to enforce its decrees. Cases are of frequent occurrence where parents appeal to the Board to compel school committees to make more satisfactory arrangements for the conveyance of their children to school.

A small school is closed and the neighbors petition the Board to open it.

A town votes to repair a schoolhouse, which a minority thinks badly located, preferring a new building in some other location. The minority petitions the Board to restrain the town from carrying out its proposed plan.

A child is excluded from school from sanitary considerations. The indignant parent appeals to the Board to have the child reinstated.

A school committee fixes the age of admission to a certain school at six years to avoid crowding. The parents wish the Board to declare that five is the legal school age.

The mayor and the school committee are at odds over a new school building, which in consequence is not opened for occupancy when it is needed for use. A member of the board of aldermen is told that the Board of Education can compel the contending parties to come to terms and to open the building.

A schoolhouse is in need of repairs. The school committee is hesitating because there is a feeling in the community and in the board that in a few years the State will take possession of all the school property and carry on the schools. That such a possibility could be considered in any community without a thrill of indignation would a few years ago have seemed incredible. But there are signs that towns are becoming more and more willing to be relieved by the State of the burden of self-support in other directions than in schools.

Because the State has done more for the support of schools in the smaller towns, there is a feeling that it may in time do all and a willingness to have it so. This was perhaps to be expected, as some demoralization always accompanies the gratuitous distribution of public money.

There may be another cause for the tendency to look to the State for relief. Scattered through the State and already quite numerous in some of the small towns are people who have not inherited those sentiments of local independence which have been common in Massachusetts. They have come from countries where the administration of schools is highly centralized, where the people have no voice in determining the educational policy and know nothing of local initiative.

Some plausible arguments may be made in favor of the larger exercise of direct authority and control by the State. Already in some towns the State is paying by far the larger part of the school expenditure. It may be urged that no other State money is so feebly safe-guarded as that distributed from the school fund, and that the expenditures should be by State rather than by town officials.

The feeling is common, and finds expression in influential quarters, that the interest of the best people in the public schools is waning, and that in consequence the character and standing of the persons chosen to serve on school committees in cities and towns are lower than they were a few decades ago. It is said that in many cases the office goes a-begging, while in others it is sought and obtained on personal or partisan grounds. It is pointed out that the selection of unworthy teachers is a natural and inevitable consequence of the choice of unworthy members of school committees, and thus the

schools are made to suffer in a vital part. It is said that the school attendance laws are executed with laxness, especially in the country towns, where personal considerations impede the action of public officials. And it is urged that many school committees in the exercise of their unrestrained authority are arbitrary and unreasonable, and fail to manifest that judicial temper which their important functions demand.

Were all these charges true, it is a question whether the remedy for them would be found in a radical change of policy. Still less would it be wise to inaugurate a revolution when the evils are local and incidental and temporary. That some towns are making an unwise use of their school money is doubtless true. That some inefficient and incompetent persons are chosen to serve on school committees is also true, and because of this some unworthy teachers and superintendents are chosen. Some truants go unrestrained, and some parents fail to keep their children in school. Massachusetts has not reached an ideal condition, and thoughtful people see all too plainly the weaknesses that exist.

But the remedy for these ills is not to be sought in more law but in more education. If in any community the schools are suffering because they are too meagrely equipped, or too poorly taught, or too inadequately supervised, or because the attendance is irregular, or because there is no interested and stimulating co-operative home influence back of them, the remedy lies in enlightening the people concerning their opportunities and their obligations. They need to be taught what education means, what schools are for, what a good school is, what the conditions for a good school are, and what they have to do about it.

If there are communities in which, because of change of population, there has been a waning of the school spirit, where the old-time interest has given place to indifference, it would be suicidal for the State to allow this indifference to continue while it undertook to do the work of the people. It must throw back the responsibility upon the people themselves, and then educate them up to the full measure of that responsibility. And the more intelligent and worthy members of every community need to feel that the State holds them responsible for

the quality of the education which the children are receiving. They cannot allow the schools to be controlled by incompetent or self-seeking men ; they cannot allow inefficient teachers to be selected or retained, nor good teachers to be dismissed, without forfeiting their reputation for citizenship.

The supreme end for which public schools have been maintained and colleges and other seminaries of learning fostered has been that the people might be competent to manage their own affairs, that they might be able to deal with public interests with breadth and candor and toleration and good sense, with business sagacity and a generous devotion to the public weal.

It has been taken for granted that public education has widened its scope and enriched its content in order that the people might be prepared to meet new conditions and to solve new problems.

To admit that the people have ceased to be competent to carry on their own local institutions, and that a change in policy is necessary, is to confess that the institutions of learning have failed in their most important function.

Every item in the summary of the year's work in the State proves that this is not true. The generous expenditure of money, the constantly enlarging field of educational effort, the cheerful readiness with which the people, publicly and privately, undertake the expensive work of differentiating educational means to meet the needs of special classes so that the most unfortunate and unpromising members of society shall have a chance at improvement, the devotion of private means to public uses in the field of education, the multiplicity and variety of organized effort to stimulate public opinion, — all these furnish the amplest evidence that the public mind is alert, the public conscience sensitive and the public judgment sane.

This is the fruit and the justification of the educational policy of the past and a reasonable warrant for its continuance.

SUMMARY OF STATISTICS FOR 1903-1904.

I. Number of Public Day Schools.

1. Number of towns, 320 ; cities, 33. Total, 353.

All have made the annual returns required by law.

2. Number of public schools based on the single class room as the unit of comparison, 11,481
 Increase over the preceding year, 246

II. Average Number of Months the Public Schools have been kept.

1. Average number of months the public schools have been kept during the year, $9\frac{5}{20}$
 Decrease, $\frac{1}{20}$
2. Average number of months the high schools have been kept during the year, $9\frac{9}{20}$
 Decrease, $\frac{1}{20}$

III. School Census Data.

1. Number of persons in the State Sept. 1, 1903, between the ages of seven and fourteen years: males, 179,763 ; females, 181,749 ; total, 361,512
 Increase in the total, 9,301
2. Number of persons in the State Sept. 1, 1903, between the ages of five and fifteen years: males, 251,882 ; females, 254,227 ; total, 506,109
 Increase in the total, 10,843
3. Number of illiterate minors in the State Sept. 1, 1903, over fourteen years of age: males, 3,216 ; females, 2,699 ; total, 5,915
 Increase in the total, 99

IV. Public School Enrolment and Attendance Data.

1. Number of pupils between seven and fourteen years of age, attending the public schools during the year 1903-1904, 310,745
 Increase, 3,048
2. Number of different pupils between five and fifteen years of age attending the public schools during the year 1903-1904, 438,708
 Increase, 8,312
3. Number of pupils under five years of age attending the public schools during the year 1903-1904, 11,161
 Increase, 23
4. Number of pupils over fifteen years of age attending the public schools during the year 1903-1904, 44,173
 Increase, 270
5. Total enrolment of pupils of all ages in the public schools during the year 1903-1904, 494,042
 Increase, 8,559

6. Average membership of pupils in all the public schools during the year 1903-1904,	431,361
Increase,	7,558
7. Average attendance in all the public schools during the year 1903-1904,	391,771
Increase,	3,155
8. Percentage of attendance based on the average membership, . . . . .	.91
9. Percentage of attendance based on the total enrolment, . . . . .	.79

V. Public School Teachers and their Wages.

1. Number of men employed as teachers in the public schools during the year,	1,247
Decrease,	26
2. Number of women employed as teachers in the public schools during the year,	13,494
Increase,	468
3. Number of different teachers employed in the public schools during the year,	14,741
Increase,	442
4. Number of teachers required by the public schools,	13,476
Increase,	268
5. Number of teachers who have attended normal schools,	7,392
Increase,	470
6. Number of teachers who have graduated from normal schools,	6,297
Increase,	366
7. Average wages of male teachers per month in the public schools,	\$145 48
Increase,	\$0 21
8. Average wages of female teachers per month in the public schools,	\$55 37
Increase,	\$0 76

VI. Public High Schools.

1. Number of public high schools,	264
Increase,	1
2. Number of teachers in the high schools,	1,738
Increase,	53
3. Number of pupils in the high schools,	43,575
Increase,	1,530

VII. Public Evening Schools.

1. Number of cities and towns having public evening schools,	56
Increase,	2
2. Number of evening schools based on the single class room as the unit of comparison,	1,071
Increase,	113

3. Number of teachers,	1,692
Increase,	169
4. Number of different pupils in attendance: males, 28,841; females, 14,939; total,	43,780
Increase in total,	4,595
5. Average attendance,	23,692
Increase,	1,364
6. Expended upon evening schools,	\$287,140 27
Increase,	\$33,777 69

VIII. Public Kindergartens.

1. Number of towns and cities having public kindergartens, .	35
Decrease,	3
2. Number of public kindergartens,	252
Increase,	6
3. Number of teachers,	469
Increase,	10
4. Number of pupils,	15,093
Decrease,	299

IX. Cost of the Public Schools for Support.

A. Total expenditure for the support of the public schools, \$12,783,235 63	
Increase,	\$776,820 54
This expenditure is distributed among the following classes indicated in the statutory definition of support:—	
1. Teachers' wages,	\$9,197,908 40
Increase,	\$322,693 20
2. Conveyance of pupils,	\$194,967 35
Increase,	\$16,669 71
3. Fuel and care of school premises,	\$1,894,604 97
Increase,	\$464,745 77
4. School committees, clerks, truant officers, etc.,	\$160,901 07
Increase,	\$2,617 71
5. Superintendents of schools,	\$338,751 72
Increase,	\$16,061 87
6. Text-books and supplies,	\$647,629 07
Decrease,	\$21,920 37
7. School sundries,	\$348,473 05
Decrease,	\$24,047 35
B. Amount included in the total expenditure for support as given under IX., A, but derived from other sources than local taxation or its equivalent, such as aid from the State, income from local funds, voluntary contributions, etc.,	\$540,638 93
Increase,	\$103,600 96

<i>C.</i> Amount raised by <i>local taxation</i> and expended for the <i>support</i> of public schools, being the total expenditure for such support as given under <i>IX., A</i> , diminished by contributions for such support from other sources than local taxation as given under <i>IX., B</i> ,		\$12,242,596 70
Increase,		\$673,219 58

X. Cost of the Public Schools for Buildings.

<i>A.</i> Total expenditure for <i>buildings</i> for the public schools,	\$3,653,432 72
Increase,	\$489,777 33

This expenditure is distributed as follows:—

1. New schoolhouses,	\$2,642,075 61
Increase,	\$508,139 29
2. Alterations and permanent improvements,	\$610,316 04
Decrease,	\$69,278 47
3. Ordinary repairs,	\$401,041 07
Increase,	\$50,916 51

<i>B.</i> Amount included in the total expenditure for <i>buildings</i> for the public schools as given under <i>X., A</i> , but derived from other sources than local taxation or its equivalent,	\$41,229 16
Increase,	\$10,639 25

<i>C.</i> Amount raised by <i>local taxation</i> and expended for <i>buildings</i> , being the total expenditure for buildings as given under <i>X., A</i> , diminished by contributions for buildings from other sources than local taxation as given under <i>X., B</i> ,	\$3,612,203 56
Increase,	\$480,138 08

XI. Total Cost of the Public Schools for Support and Buildings.

1. Total expenditure for <i>support</i> and <i>buildings</i> , for the public schools, that is, for all public school purposes,	\$16,436,668 35
Increase,	\$1,266,597 87
2. Amount included in the total expenditure for <i>support</i> and <i>buildings</i> as given under <i>IX., A</i> , and <i>X., A</i> , but derived from other sources than local taxation or its equivalent,	\$581,868 09
Increase,	\$114,240 21
3. Amount raised by <i>local taxation</i> and expended for <i>support</i> and <i>buildings</i> , being the total expenditure for these purposes as given under <i>IX., A</i> , and <i>X., A</i> , diminished by contributions thereto from other sources than local taxation or its equivalent, as given under <i>IX., B</i> , and <i>X., B</i> ,	\$15,854,800 26
Increase,	\$1,152,357 66

XII. Cost of the Public Schools per Child.

1. Average <i>taxation</i> cost of the public schools for <i>support</i> (<i>IX., C</i>) for each child in the State between the ages of five and fifteen years (<i>III., 2</i>),	\$24 19
Increase,	\$0 83

2. Average <i>taxation</i> cost of the public schools for <i>support</i> (IX., C) for each child in the average membership of the public schools (IV., 6),	\$28 81
Increase,	\$1 51
3. Average <i>taxation</i> cost of the public schools for <i>support</i> and <i>buildings</i> , that is, for all school purposes (XI., 3), for each child in the State between the ages of five and fifteen years (III., 2),	\$31 33
Increase,	\$1 64
4. Average <i>taxation</i> cost of the public schools for <i>support</i> and <i>buildings</i> , that is, for all school purposes (XI., 3), for each child in the average membership of the public schools (IV., 6),	\$36 76
Increase,	\$2 06
5. Average expenditure on account of the public schools for <i>support</i> and <i>buildings</i> , including <i>voluntary contributions</i> as well as money raised by <i>taxation</i> (XI., 1), for each child in the State between five and fifteen years of age (III., 2),	\$32 48
Increase,	\$1 85
6. Average expenditure on account of public schools for <i>support</i> and <i>buildings</i> , including <i>voluntary contributions</i> as well as money raised by <i>taxation</i> (XI., 1), for each child in the average membership of the public schools (IV., 6),	\$38 10
Increase,	\$2 30

XIII. *Percentage of State Valuation expended for Public School Purposes.*

1. Percentage of the total State valuation (May 1, 1903) raised by <i>local taxation</i> and expended for the <i>support</i> of the public schools (IX., C), . . . . .	.003 $\frac{83}{100}$ or \$3.83 per \$1,000
Increase, . . . . .	.000 $\frac{12}{100}$ or \$0.12 per \$1,000
2. Percentage of the total State valuation (May 1, 1903) raised by <i>local taxation</i> and expended on the public schools for <i>support</i> and <i>buildings</i> (XI., 3), . . . . .	.004 $\frac{95}{100}$ or \$4.95 per \$1,000
Increase, . . . . .	.000 $\frac{23}{100}$ or \$0.23 per \$1,000

XIV. *Academies and Private Schools.*

1. Number of incorporated academies,	41
Decrease,	7
2. Whole number of pupils in the academies for the year,	5,675
Decrease,	1,355
3. Amount of tuition paid in the academies during the year,	\$550,464 10
Increase,	\$76,237 21
4. Number of private schools returned,	334
Decrease,	23

5. Whole number of pupils in the private schools during the	
year,	82,771
Decrease,	2,724
6. Amount of tuition paid in private schools (much of it estimated),	\$781,851 02
Increase,	\$2,339 61

SCHOOL ATTENDANCE.

All children between the ages of seven and fourteen, unless physically disqualified, are required by law to be in school unless they have acquired in some other way the branches required to be taught to all children. There is evidence that they are in school. The census returns show that there were in the State on Sept. 1, 1903, 361,512 such children. The school returns show that during the school year there were enrolled in the public schools 310,745 such children. Estimating that they form the same proportion of all the pupils in the private schools as in the public schools, the private schools contained 52,148, making in all schools 362,893, a number 1,379 in excess of the census figures. This excess is probably due to the fact that the school returns cover the entire year, while the census figures are for a given date. As these are the children for whose attendance the law holds the parents responsible, and also the ones over whom the attendance officers have power, it is gratifying to know that the law is so generally obeyed. It is more gratifying to know how far beyond the requirements of the law the voluntary action of the parents carries them. The total enrolment in public and private schools was 582,488, a number 220,976 in excess of the required attendance. In other words, the actual enrolment is 62 per cent. larger than the required enrolment.

While most of the children who ought to be in school are enrolled, they are not in school all the time. Of the average membership of the schools, 9 per cent. is always absent. This is the State average. In towns it varies from 15 per cent. to 25 per cent.

It is probable that much of this irregularity is due to sickness, the remainder to parental indifference. If school committees and superintendents are also indifferent, the situation is aggravated and becomes chronic. In towns with few pupils,

the returns may show wide fluctuations from year to year, due to exceptional causes, but where the absences average 10 per cent. year after year, while in neighboring towns and cities the annual average is only 5 or 6 per cent., there is indication of looseness in administration.

TRUANCY.

A part of the absence is due to truancy. How much, it is impossible to tell. We have the record of commitments to the truant schools, but only habitual truants are committed, and only a part of these. For most of the cases of truancy the home conditions are responsible, so that truancy is a social problem as well as a school problem. The results of some inquiries made in a single city probably fairly represent general conditions.

Of one group of five boys having comfortable homes the record is, in one case, "father away most of the time;" another, "both parents weak and indulgent;" another, "boy is weak-minded;" another, "parents quarrel;" the fifth, "boy is stubborn and parents can do nothing with him." Of some truancy boys the report is as follows: two have no parents living; one lives with a blind grandfather and the other with an uncle; two have no father living, mother works and is away all day; three have no mother living, father away all day; seven have no mother living, father drinks; nine have fathers and mothers, both of whom drink.

— —, fifteen years old. Constant truant. Weak, well-meaning father. Weak, defiant mother. Boy-gave every indication of being depraved and degenerate. Was put to work one year. The next year was brought to school by father, who pleaded that he might remain as he would not work. Stayed in school during bad weather, but when warm days came played truant and never returned.

— —, thirteen years old. Occasional truant. Mother kept him out frequently and lied to shield him when he stayed away from school without permission.

One master of a city school says: "The teacher is largely responsible for occasional truancy, but every master knows that she is often more difficult to handle than the boy, and oftentimes I cannot justly blame a boy who does play truant."

Mr. J. M. Dill, master of the John A. Andrew School, Boston, has kindly given me brief sketches of some types of truant boys, with comments upon the general subject. It is such cases as these that furnish the difficult problems in popular education.

Some Cases of Truancy.

A. — This boy was admitted into a third grade of this district in September, 1902. He had a bright mind, was usually cheerful, and, with some pressure from the teacher, did his work well. He possessed, or was possessed by, I am not quite sure which, a fertile imagination, and had, considering his surroundings, a large vocabulary. These qualities, combined with a mobile face under excellent control, enabled him to explain his frequent absences in such a way as to deceive for a time a most excellent teacher. After being detected these trancies continued through October and gradually ceased.

By keeping him very busy and making him think that he was happier in school than elsewhere the teacher held him to his daily task. He was promoted to a fifth grade in September, 1903.

It may have been that the idleness incident to the long vacation, the association with bad companions and a steady indulgence in cigarette smoking had a tendency to undo the good that had been accomplished. The same traits were soon discernible, and controlled him to such an extent that again he yielded to the old impulses and was once more a truant. The same battle had to be fought over again by the new teacher, who found the child's more mature nature an additional opposing force.

He was not bad in school but had the "*Wanderlust*" about him. He would disappear for days together, frequenting cheap places of amusement in the afternoons and until late at night.

When these were closed he wandered about the streets until they were deserted, and slept in doorways, wagons or under sidewalks till morning, unless disturbed by the police.

A part of the forenoon was usually given to begging. "Would you mind giving me a nickel? My father and mother are dead, and I have had nothing to eat for ever so long." This appeal, with a few tears judiciously shed, usually brought the money, and repeated, gave sufficient for the party he was with for the day. They usually hunted in two's and three's he told me. "But I was the best one to get money and they made me do it."

One of these trips, a rest at home for a while, the act repeated, — this was his course of procedure until he was sent away. His mother, utterly unable to control him, joined in the request for his removal.

What was the cause of his truancy? I do not know.

I should have said that inquiry showed that when he came to us he had the reputation of being an incorrigible truant, but as he was so young it was not thought best for him to be sent to the truant school.

I think that there must have been a weak strain in his ancestry which led to self-indulgence and the desire to go the easy way. When his ambition was excited he did well, but he was as unstable as water.

There appeared to be no undue harshness in the home. His mother showed a strong love for him and provided as well as her means allowed. As I have indicated, she was indulgent rather than harsh; but I recall no instance where she attempted in any way to shield him from the results of his wrong-doing.

Our personal relations were pleasant and he was often quite confidential in his reminiscences. He told me of his being carried to the station house late at night in one precinct. On being sent home he went into another precinct, so that "the officers would not run him into the same captain again."

It is difficult for me to understand such a child. Only nine years old; begging by day, sleeping out in door ways at night, yet having a comfortable home and an affectionate mother. I think it is what is called the "Wanderlust." I have never seen the word defined, but I take it to mean that strong desire to change the scene which makes tramps of adults and accounts for the most incorrigible of truants.

Regarding this case I think all was done that could have been done under the circumstances. It is possible, if he had been one of three or four to share a teacher's time, he might have been kept from the Parental School, but the public schools cannot offer such facilities.

The following letter, written while this boy was in the fourth grade, shows some of the characteristics pointed out by Mr. Dill:—

Boston, March 19, 1903.

DEAR MR. DILL—

I am trying to get in Miss . . . room next year. I will try my best, if I do I will try to get all over the granmer school and then I will go to high school and get all through there and then I will work with my father and I will get 15 dollars and I will bring it home to my mother she will give me three dollars out of it and when I die I will leave it to her and she shall have all to her self and Richard for clothes and we might own a house.

Yours truly,

B.—A pretty fair boy in grade six. The relations between teacher and pupil were pleasant. In reply to my inquiry, "Have you had a fair show in the class?" "Yes, sir, I have been used all right."

He was frank and polite in the class room and did a fair amount of work. He had the cigarette habit and was little restrained by his parents regarding his companions or his comings and goings. I regarded him as being distinctly superior in character to either of his parents. His mother was a common brawler and his home must have been very uncomfortable. In a way he was driven to the streets. Here he found bad companions, lost what grip he had on desiring to do and to be, and went with the bad influences he found there.

C.—In the two cases cited there were "likeable" sides to both the boys, but in this case the boy was attractive neither in person nor character.

He was a dull, heavy, brutal boy, inclined to bully smaller children, and to get out of every task given the class to perform.

"He would have made a very knurly, sour apple if he had been born to that station in life."

He was inclined to steal all his written work and was ugly when caught.

His parents were of the same type and shielded him when he was in trouble, excusing his absence by falsehood when he was truant. He was sent away.

I do not wish to generalize from these three cases, but they are given as types, and I believe most of the incorrigibles will fall into one of them.

The boy who is overcome once in a year by the circus parade, the great ball game, or on one of the first warm days of early spring is not a member of the class truant. To analyze the causes which make the confirmed truant is beyond me. Motives are not always easy to grasp. In the ordinary relations of life the whys and wherefores of the conduct of some of our friends elude us and forever remain unsolved enigmas. Our shrewdest guesses do not satisfy us.

I place what I have called the "Wanderlust" as the leading cause of truancy.

Poor home training is another fruitful cause, — parents who never compel or encourage their children to do what is distasteful to-day that the morrow may be better. They allow the children to drift along lines of least resistance and strongest preference. Such parents have never encouraged their children to do, and they know nothing of the pleasures of achievement. These parents are weak rather than vicious.

When you add to these qualities intemperance you complicate the problem further and give the child a smaller chance. Many times a drunken, brawling woman makes the house a place shunned by the child, and the school, the street or the show is the only place where he is fairly sure of a comfortable time.

The attractions of the theatre form a third cause. The so-called first-class houses are beyond the means of the children, and they must seek the cheapest, which are often the lowest. I presume the only well-furnished apartments that many of these children ever see are on the stage. I think most of these children lack emotion and live dull, heavy lives. They enjoy the excitement of the drama as men in higher life do the stock market, and others their clubs. The tinsel and glitter of the stage are real to them. The playwrights bring together for them the most highly exciting scenes, and the next day in school is exceedingly tame and dull. The ordinary duties of school routine become distasteful, especially when they were never highly enjoyable, and they begin to be neglected. So the downward road is begun, and each succeeding trip to the playhouse increases the momentum.

I have made three general classes, but, in all such cases, one child may combine some of the conditions of all three in a higher or lower degree.

LENGTH OF SCHOOL YEAR.

Schools are to be kept "at least thirty-two weeks in each year," except that in towns whose assessed valuation is less than \$200,000 the required period may, with the consent of the Board of Education, be reduced to twenty-eight weeks.

The schools of the State during the last school year were in session on an average thirty-seven weeks, five more than the highest requirement.

The following table from the annual statement of the Commissioner of Education of the United States shows the position which Massachusetts holds among the States in respect to the length of its school year: —

STATE OR TERRITORY.	Average number of days the schools were kept.	STATE OR TERRITORY.	Average number of days the schools were kept.
United States,	147.2	South Central Division — <i>Con.</i>	
North Atlantic division,	178.5	Mississippi,	123
South Atlantic division,	118	Louisiana,	130
South Central division,	105.6	Texas,	116
North Central division,	156.9	Arkansas,	92
Western division,	146.3	Oklahoma,	89
		Indian Territory,	158.6
North Atlantic Division:—		North Central Division:—	
Maine,	143	Ohio,	165
New Hampshire,	140.05	Indiana,	146
Vermont,	155	Illinois,	160
MASSACHUSETTS,	186	Michigan,	165
Rhode Island,	190	Wisconsin,	166
Connecticut,	188.83	Minnesota,	158.6
New York,	177	Iowa,	160
New Jersey,	182	Missouri,	144
Pennsylvania,	166.4	North Dakota,	150
South Atlantic Division:—		South Dakota,	129
Delaware,	170.1	Nebraska,	138
Maryland,	190	Kansas,	125.75
District of Columbia,	174	Western Division:—	
Virginia,	122	Montana,	107
West Virginia,	123	Wyoming,	110
North Carolina,	86.9	Colorado,	153.12
South Carolina,	93	New Mexico,	88
Georgia,	118	Arizona,	128
Florida,	94	Utah,	151
South Central Division:—		Nevada,	155.6
Kentucky,	90	Idaho,	124.2
Tennessee,	96	Washington,	116.2
Alabama,	102.5	Oregon,	158
		California,	176

But 2 towns kept their schools open less than thirty-two weeks and these towns fell short by only two or three days. This is the best record yet made. Of 19 towns entitled by their low valuation to ask that they might reduce their school term to twenty-eight weeks, only 2 asked for the concession, and that on the ground that the heavy snow of the last winter had made the roads impassable and necessitated closing some of the schools for a time.

The average length of the high school year was thirty-seven weeks and four days. There is a slight decrease in length each year. The demand of the law for a high school year of forty weeks seems to be considered by the people to be excessive, and they quietly ignore it. They are encouraged to do this by a provision in the school fund law that the money from this fund may be withheld from a town required to keep a high school if such school is kept less than thirty-six weeks. By this double standard the people are led to think that, while the

State demands a year of forty weeks, it will be satisfied with one of thirty-six weeks.

Of the 264 high schools in the State, only 50 are kept forty weeks. Of the 168 towns and cities required to maintain high schools, in only 31 are they kept forty weeks.

These figures seem clearly to point to the necessity of so framing the requirement as to leave no room for misapprehension, and at the same time to meet what seems to be the general wish of the communities.

I recommend, therefore, that the minimum year for high schools in towns having five hundred or more families be fixed at thirty-eight weeks, exclusive of vacations.

TEACHERS AND THEIR QUALIFICATIONS.

The determining element in the efficiency of a school system is the quality of the teaching force. Five factors go to make an efficient teacher, — natural ability, scholarship, training, experience and growth. None of these can be determined by statistics.

There are in the public elementary and secondary schools of the State 14,741 teachers. To say that all of these persons possess those natural gifts and graces which should characterize a teacher would be untrue. To say that, taken as a whole, they are probably as well fitted by nature for their work as the persons engaged in other callings are fitted for theirs is well within the truth. It is also true that teachers were never sifted so carefully as now for the purpose of winnowing out the chaff.

As for scholarship, there are few teachers who have not had at least a high school education. More than half the teachers have added to a high school course attendance at a normal school. Probably 1,500 have attended college. Just how much this means no one knows. There are no standards of scholarship fixed by State examinations, as in most of the States and in most countries. All that is publicly known about these teachers is that they have had certain opportunities for acquiring knowledge. So far as scholarship is concerned, teachers are employed in this State almost wholly on faith. Certificates of graduation are accepted as *prima facie*

evidence of satisfactory attainments. How widely the intrinsic value of these certificates may differ from their face value is best known by those who issue them. Other people often discover the difference when it is too late.

In a report to the Board of Education for the year 1885 it was stated that of the teachers in Barnstable and Dukes counties 29 per cent. had received only a common school education, 44 per cent. only a high school education, 12 per cent. were normal school graduates, and 14 per cent. had attended college.

Now the numbers for the same counties are as follows : 2.8 per cent. have had only a common school education, 24 per cent. only a high school education, 53 per cent. are normal school graduates, and 25 per cent. have attended college.

The number of trained teachers grows larger year by year, but the ratio to the whole number of teachers grows slowly. The ratio of normal graduates to the required number of teachers has grown in ten years from 35.5 per cent. to 46.8 per cent., a little more than 1 per cent. a year. During the last three years it has grown at the rate of 2 per cent. a year. Should this rate of increase be maintained, it might be expected that after twenty-five years more all the teachers would have had full normal training.

It ought to be said in this connection that a considerable number of teachers not reported as graduates of normal schools have had some professional preparation in local training schools. It was estimated last year that the number of such teachers in the State might reach a thousand.

On the other hand, the showing for the State is deceptive. These teachers who have had special training for the work are not evenly distributed throughout the State. Boston is using 25 per cent. of them, and 52 per cent. of all the normal graduates teaching in the State are at work within ten miles of the State House.

In Berkshire County only 35 per cent. of the teachers are normal graduates, and in Essex County only 32 per cent.

For measuring the length of experience of the teachers of the State there are no statistics.

That there has been some gain in recent years is evident from the following figures from Barnstable and Dukes counties. In

the spring of 1885, of the teachers then at work, 11 per cent. had taught less than one term, 19 per cent. less than one year, and 42 per cent. less than three years.

Of the teachers at work in the same counties in the fall of 1904, 11 per cent. had taught less than one term, 14 per cent. less than one year, and 35 per cent. less than three years.

Money buys experience as it buys professional training and natural ability, so that the experienced teachers are chiefly in the cities and larger towns, where salaries are higher. On the other hand, in most cities are teachers who have had too much experience. They have outlived their usefulness but cannot afford to retire. This is acknowledged by superintendents and school boards throughout the country to be the most perplexing problem in school administration. To dismiss teachers who have been long in service summarily and without provision for their future support seems to be inhuman, and all school boards shrink from doing it. Yet the school officials know that the children are suffering from the continued employment of teachers who have lost their efficiency. Sympathy for the teacher outweighs regard for the interests of the pupils.

Two attempts have been made in Massachusetts to smooth the way for older teachers to retire. Through the efforts of the teachers themselves in mutual benefit associations, funds have been acquired from which annuities may be paid to retired and disabled teachers. These associations include but a small part of the teachers; and their funds, after all their efforts, are not large enough to afford the relief that is needed. For the teachers of Boston a retirement fund has been provided for by law. But this, too, can pay but small annuities.

Some practical and general provision for the retirement of teachers is one of the pressing needs of school legislation.

Teaching efficiency is not measured by experience alone. In school administration pressure is always brought to bear upon officials to promote teachers on the ground that they have been long in service. To natural ability, scholarship, training and experience must be added growth, if the teacher is to be efficient. At this point school conditions are now weakest. Neither public sentiment nor administrative bodies demand that the teachers shall give evidence of growth in

scholarship and teaching power as they grow in years of service. No means are established for determining the fact or measure of such growth, and no general provision is made for stimulating or directing it. Of this I shall speak further in another connection.

While there are no statistics to prove the facts, there is a general agreement among those who have the employment of teachers that qualified teachers are scarce. In this the managers of teachers' agencies, superintendents and normal school principals agree.

When the so-called revival of education in Massachusetts began seventy-five years ago, the spirit and purpose of movement were expressed in the motto: "As is the teacher, so is the school." All the plans of the reformers had for their primary end the improvement of the teachers of the State. The normal schools, the American Institute of Instruction, State and county associations of teachers, town instead of the district control,—all had this for their object. In view of the fact that all of these agencies have been at work more than two generations, it is a fair subject of inquiry why there is not a sufficient supply of suitable teachers.

SOME REASONS FOR THE SCARCITY OF QUALIFIED TEACHERS.

When James G. Carter and Charles Brooks and Horace Mann set about to improve the teachers of Massachusetts, a public school was a simple affair, school-keeping was a simple process, and the means they instituted—normal schools, teachers' conventions and institutes—were adapted to accomplish the end they had in view. Had things remained as they were, the work of improvement would doubtless have gone steadily on until the number of qualified teachers would have been equal to the demand.

But these same men set in motion other currents, which combined with great social changes that began about the same time to make a public school a more complex affair, teaching a more serious business, and the preparation of teachers a more difficult process. A study of these changes and their effects throws light upon the present situation. First among these changes is the widening of the old fields of knowledge and

the opening of new ones since the normal schools were established. The preparation of teachers, as the reformers saw it, meant not only an improvement in methods of teaching but also in scholarship. The teacher must know the subjects he is to teach.

Consider the development of the old subject, geography, looked at merely as a description of the earth's surface, — facts which a text-book could contain and which a teacher must know. The expansion of the United States beyond the Mississippi, the changes in the map of Europe, the opening of Africa, the colonizing of Australasia, the development of the South American States, the awakening of Asia have all come about while the normal schools have been trying to improve the teachers. Geography as a science has been born during this period. The teaching of geography began to be revolutionized when Arnold Henry Guyot came to this country in 1849.

It is hard to realize the immense distance that separates the scanty sailor geography of half a century ago from the complicated net-work of relations of physical and social and political facts, gathered in fifty years of untiring research, which now, under the name of geography, forms a part of the daily food of all children in the elementary schools.

A qualified teacher of geography in a grammar school must have intellectual power of a high order, — a comprehensive grasp of details and ability to master extended trains of inductive reasoning. There is no subject in the high school curriculum which makes severer demands on the teacher considered simply as a scholar.

Reading was confined to a single series of reading books containing miscellaneous selections.

Since that time American literature has been created, the great British novelists have done most of their work and the works of modern poets have become common property. All this must enter into the equipment of a qualified teacher of the common school.

United States history was beginning to be taught, but it was not required until the normal schools had been established nearly twenty years. Since that time not only has a most im-

portant part of the history been made, but all the great histories by Americans have been written. Bancroft, Prescott, Parkman, Hildreth and Fiske have done their work while the normal schools have been doing theirs.

The development of natural science during the last fifty years, in the effort to comprehend which the mind is bewildered, could not help affecting the schools, even if no approach had been made by the schools themselves.

But the Pestalozzian cult, which the reformers introduced, having for its basic principle the study of things through the senses, opened the floodgates for the new knowledge. First as object lessons, then as elementary science, and last as nature study, the whole circle of sciences has come into the most elementary school, and a qualified teacher must know something of them all.

Music in schools meant singing by rote by those who could sing. If the teacher could sing and liked it there was a good deal of singing; otherwise there was none, or only so much as the pupils wanted to do by themselves, some boy or girl pitching the tune.

When music became a required study, and came to mean for the teacher not only instruction in musical notation but also training of voice and ear and chorus directing, a whole range of possible teachers was eliminated.

The same result has followed the introduction of drawing. While the dictum may be true that everybody can learn to draw, large numbers of persons cannot become qualified teachers of drawing.

But for the thoroughly modern up-to-date primary and grammar school, even the outfit I have described is much too scanty.

In place of plain primary reading is literature, and for this the teacher must have at command the wealth of classic mythology, the tales of Grimm and Andersen and of the Arabian Nights. She must know the Norse legends, be at home in Jötunheim and Valhalla, and weep when all things weep at the death of Baldur the Beautiful. She must include the Nibelung stories and must come down to the Scottish chiefs and the tales of the border.

In the work in drawing she must not only be able to draw and to teach drawing but she must also know the history of art, not only of ornament but of painting, the schools early and late, the great masters and their great works and what made them great.

In history she must know not only the history of the United States but all history, for it is all in the newest grammar school curriculum, — the history of Egypt and Greece and Rome, of Europe during the Middle Ages and since, — not only the great features, such as the crusades and feudalism, but also those more subtle topics which historians have wrestled with so strenuously, the mediæval towns, the guilds, the rise of the universities.

For geography the teacher must know geology. She can no longer be satisfied with knowing the place and height of a mountain; she must know the young mountains from the old ones and be able to describe the signs of advancing age. She must know to what sort of a convulsion the mill town owes its falls, and to what drowning catastrophe the seaport owes its harbor; she must be able to point out the glacial phenomena of her neighborhood, and teach the children how to know whether the hill they coast on is an esker or only a drumlin. All this is required that a teacher may be qualified.

But this is not all. Among the principles which Horace Mann enumerated and which the normal schools have constantly urged is the doctrine that the teacher should be independent of and superior to the text-book. When Dr. Arnold was asked why he always read at night the Livy lesson of the next day, when he had taught Livy all his life, he said he wanted his boys to drink out of a running brook rather than out of a stagnant pool.

Looking at the modern curriculum in the light of these two principles, we see how comprehensive and how profound is the scholarship required of a qualified teacher in an elementary school. It is not surprising that qualified teachers are scarce. I have seen many teachers east and west trying to do this modern work. They have seemed to me to be "like little wanton boys that swim on bladders," "far beyond their depth."

On the side of personal power, modern social changes, pro-

found in all their influences, have combined to make teaching difficult. The centralizing social tendency began about the time of the starting of the normal schools. The steady, irresistible set of population from the farms to the villages, the wholesale substitution of urban for rural conditions, changed the whole character of the schools, and this change has been much more profound than appears to a casual observer.

It is easy to see that the massing of children in graded schools makes larger demands upon the personal power of the teacher to organize and control and direct.

In the ungraded school the teacher was required to hold the attention of a small portion of the school for a small fraction of the time. In the modern school she must hold the attention of all the scholars all the time. This demands ample resources, quick perception, fertility of invention, celerity and versatility of mental action.

Girls who could easily get on with a little rural school of a score of children of different ages are helpless in the presence of a class of forty or fifty children of the same age.

But this is not all nor the most serious phase. Most of the schools for which the normal schools in the early days were expected to qualify teachers were kept but a few months at a time, summer or winter. Most children spent the larger part of their time at work in the home, on the farm, in the shop.

Parental influence was strong and on the whole healthfully stimulating. Habits of thinking, of feeling and of doing were formed which reacted on the school work when school time came. Schooling was a privilege to be prized, an opportunity to be improved.

Gradually, in the name of educational reform, the school time has been increased until now the school is practically exclusive in its demands upon the time of the child, and those formative influences which once belonged chiefly to the home and only incidentally to the school have come to be chiefly the responsibility of the teacher and only incidentally of the parent. Attendance even for the brief time the schools were kept was irregular and intermittent. Dull children, children with vagrant instincts, children with insane impulses could and did stay out of school when the fit was on. When they came,

school furnished novel sensations which diverted them and made them more easily amenable to school discipline.

But not only have the schools been kept open more of the time but compulsory attendance laws have brought into schools and held them there all the time children who, like George Eliot's Mr. Pullet, have great natural capacity for ignorance and great capability of making trouble.

By steadily raising the age of compulsory attendance the schools have come to contain many children who, having no natural appetite for study, would under the old régime have left school early. Compulsory attendance laws do not create brain capacity nor modify hereditary tendencies; they only throw responsibility for doing both upon the schools and create expectancy in the public.

I have said nothing of the deterioration of blood which everywhere characterizes urban conditions, the degradation of families and neighborhoods, and the consequent loss of mental and nerve fibre in many children. A modern graded class is, therefore, a very large and miscellaneous collection of children, which may and often does include a considerable number of weak, wayward and vicious ones and a good many bright ones, who have brought from home no experience in work, no habit of doing things, no sense of responsibility, no order, and who are the victims of a chronic ennui.

While these changes have been going on, essentially modifying the personnel of the school as to qualities, motives and ideals, by another change in public opinion the teachers have been forced to change their mode of dealing with children. Physical force has been rejected as a means of control. Fear of punishment has come to be considered an unworthy motive for teachers to use. In the old schools lazy boys could be whipped into learning, refractory boys could be broken or cowed into submission, bad boys could be put out of school. Now school life and school work must be made so attractive, so stimulating, so elevating that all children of school age shall learn to attend because they like to, and learn to study and behave well from an inward impulse to do right.

To do all this new work in this new way calls for teachers of a very high order of mental and moral attainments, and of

physical attainments as well, for the nervous strain is excessive. There must be a latent power whose existence is felt without being demonstrated, — that combination of firmness with gentleness that controls by developing self-control. Such personal power is not by any means unusual. It may or may not co-exist with scholarship, but it bears no necessary ratio to it, indeed, is not commensurable with it.

Superinduced upon all this has been the extension of school supervision. A school superintendent is a person whose profession is to create school ideals, to set up school standards and to hold teachers up to them. Not having the work to do himself, he has leisure to observe how well or poorly the teachers do it. In the mind of a specialist of any kind ideals find favorable soil, strike their roots deep and grow luxuriantly. So the good superintendent is like the director in a gymnasium who is constantly raising the vaulting bar a little higher and adding a little to the weight of the bells and the clubs. Teachers are, therefore, being subjected to an inspection which is constantly growing more minute, and they are being measured by standards which are constantly growing higher and more exacting.

During all the early life of the normal schools, they had as auxiliaries the small rural ungraded schools. These were practice schools where normal graduates and others worked off their newness, tried their powers, learned their weaknesses, and gathered strength, or failed and disappeared. Until recently most qualified teachers became qualified by service in these schools. In these last days such schools have steadily decreased in numbers, partly by natural causes, the population which fed them having disappeared, and partly by the artificial process of consolidation. They are probably gone not to return, but we cannot overlook the change in discussing the preparation of teachers.

Looking back now along the way we have come, we see that since the normal schools began to try to improve the teachers the demands upon the teachers have been steadily increasing, — demands for scholarship due to the wide extension of human knowledge and to the enlargement of the common school curriculum, and demands for power due to the centralization of

population, the lessening of parental influence, the enforcement of compulsory attendance laws, the abolition of corporal punishment and the extension of professional supervision.

When we try to picture to ourselves a qualified teacher in a modern graded school, we are not surprised that they are few ; we wonder that there are any. There are whole armies of men and women who would have passed muster for teaching in the days of Horace Mann who could not possibly to-day get by the recruiting officer.

But this does not complete the survey of the situation. By steadily increasing the demands upon teachers, the public has steadily, though indirectly, limited the supply by a process of natural selection. But certain other causes have been at work, tending to limit the supply more directly. Colleges for women, modern institutions, have drawn away from the normal schools large numbers of persons who by birth, by breeding and by scholarly tastes were fitted to become qualified teachers. Many of these have become teachers in high schools, some of whom have grown to be qualified teachers. But the college women are practically lost to the great public school demand, and the loss is more serious than we have been willing to admit.

Besides the women who have been tempted away from teaching by colleges, the widening of the field of employment for women has withdrawn still larger numbers. While these are not necessarily among the more scholarly, they include large numbers of young women of business ability, having intelligence, executive capacity, initiative, perseverance, loyalty and ambition. These are qualities which the modern school needs, and to have them diverted into business channels is a positive and irreparable loss to the public school interests.

I have thus brought under review some of the causes which have contributed to make qualified teachers scarce. Each of them by itself seems to be of trifling significance, but their influence has been cumulative, and together they have made of teaching a new business, and have made the preparation for it more difficult and the probability of success more remote.

PROPOSED MEANS FOR INCREASING THE NUMBER OF QUALIFIED
TEACHERS.

Higher Wages. — The wages of women teachers are ridiculously low, so low as to repel from the service many able and enterprising young women. In Massachusetts the average monthly wages of women teachers is \$55.37. The average number of months of teaching in a year is 9¼, making the average annual earnings \$511.90. It should be noticed that this includes all the women principals of grammar schools, and all college graduates teaching in high schools. Here again the State average is deceptive. The average for Barnstable County is \$353.82; for Franklin County, \$335.38; and for Dukes County, \$329.

Some town averages taken at random are much lower, — \$165.04, \$198.40, \$260.43, \$206, \$212.89, \$241.50, \$264.40 and \$267.60. These represent the total annual earnings of the teachers. It is not surprising that there should be a scarcity of qualified teachers in these towns and counties. The wonder is that teachers enough to fill the places can be tempted away from the poorest shop work and from domestic service, where the annual earnings are much more. Yet, Sandisfield, which pays its teachers but \$165.04 a year, taxes itself two and one-half times as heavily for school support as does Brookline, whose teachers receive annually \$688.83.

Higher wages would tend to secure all the elements of efficiency. Abler persons might be drawn from other employments; teachers could afford to spend longer time in preparation and so gain in scholarship and training; they could be held longer in service and so gain experience; and they could afford to avail themselves of forms of self-culture now beyond their means, and thus grow in efficiency. Fortunately, the country at large is awakening, though slowly, to the fact that the teachers make the schools, and that in the last analysis the success of the public school system is a matter of wages.

More College Graduates. — To satisfy the demands for wider scholarship, efforts have been made to increase the number of college graduates in the elementary schools. These efforts have not been generally successful and when successful the

results have not been wholly satisfactory. Nothing but necessity will induce the average college girl who intends to earn her living by teaching to work anywhere but in a high school. All her study for eight years, the years of her maturer interests, have been given to high school subjects. She has forgotten what little knowledge she brought from the grammar school and has lost her taste for elementary learning. In the high school she will not only be in touch with familiar college subjects but she will be associated with college-bred teachers; she will be paid better and the hours of the high-school session will allow her opportunity for self-culture.

These practical difficulties in the way of bringing more college graduates into the grades are not likely to be easily overcome. But there are two ways of smoothing the way. Some special study of teaching as a business, study carried on in close touch with classes of elementary pupils, would tend to discover to the clear-headed and keen-sighted college girl possibilities of development for herself in elementary school work which she had not thought of, and would give her some zest for it. Such study should be at a normal school, and arrangement should be made by the normal school to make the work attractive and profitable. If one school were designated in which work for college graduates should form a distinctive and prominent feature, that such students would find sympathetic companions in work, it might be better than to open all the schools. During the last ten years there have been in the normal schools a considerable number of college graduates as special students. How many of these are teaching in elementary schools is not known.

On the other hand, some approach to these persons might be made by the elementary schools themselves. More elasticity in school courses and programs, and more departmental work in the upper grades would offer to the college graduates opportunities to use their wider culture in developing and stimulating scholarly tastes in boys and girls of grammar school age. This is a consummation devoutly to be wished.

Lengthening the Normal School Course.—To meet the demands for more highly qualified teachers, it is proposed to make the minimum course in the normal schools three years

instead of two. This plan has received the indorsement of a large number of the school superintendents of the State. Already in the normal schools a considerable number of students are spending three years.

The tendency has been to use the longer term for extending the period of practice.

There are serious objections to making a three years' course compulsory. The fact that, of the whole number of teachers outside of the Boston district, less than 40 per cent. have had even two years of normal training militates against any change which would still further reduce the number. The low wages paid to elementary teachers throughout the State offer no inducements to more extended preparation. The most pressing need of the State now is better teachers in the smaller and poorer communities.

But this is not saying that a longer normal school course is not desirable and to be still further encouraged. It is a question, however, whether the extension of the course should be used for practice or for securing a broader scholarship. Superintendents are interested in having teachers familiar with schoolroom ways, already broken to harness, with the tricks of school-keeping all learned, and with the self-confidence which comes from having tried and succeeded.

It may reasonably be doubted whether it is the legitimate function of the normal school to turn out experienced teachers; whether the use of a practice school is not rather as a testing place to discover aptitude and reveal structural defects.

A course of three years might be made of twofold use if half of the third year were spent in regular schoolrooms under critic teachers and the other half in intensive study in the normal school of one subject, or at most two, included in the curriculum of the elementary schools. This would add to the scholarly attainments much needed knowledge, and would provide better qualified teachers for special departmental work in the grammar grades.

Such a plan for a third year would doubtless prove attractive to a considerable number of students who do not care to spend more time in the ordinary normal school routine.

Improvement of Teachers in Service. — Whatever may be

done to increase the number of qualified teachers by offering higher wages, by hiring college graduates, by extending and improving the normal school training, the fact remains that any substantial progress may be hoped for only by a general uplift of the teachers already in service.

For this the superintendents are primarily responsible. This is what they are for. The State provides two instrumentalities for training teachers, the normal schools and the superintendency, and one is as necessary as the other and as responsible.

A superintendent cannot increase the natural ability of his teachers, but he can help them to make the most of what ability they have. He may discover latent power, and he may prevent power from going to waste by keeping it within useful channels. He cannot directly improve their scholarship, but he can help the teachers to see their limitations, and he may suggest needed lines of study and direct the teachers in pursuing them.

If the teachers have had the training of the normal schools, he may show them how to adapt their general principles to specific cases. He may teach applied psychology to supplement the theoretical psychology of the book and the schools.

If he has to deal with inexperienced and untrained teachers, teachers only in name, his field is broad and interesting. He must be to them what the normal and training schools are to their students. He must instruct in principles and train in practice. His influence must be to enlighten, to stimulate, to encourage and to restrain. This work should be definitely planned and systematically carried forward. The means will be private advice and suggestions, public meetings, directions as to books to be read, and quiet insistence upon study. Groups of teachers might be helped by forming book-clubs for mutual reading and discussion under the guidance of the superintendent. Every corps of teachers should feel the forceful influence of a thoughtful, judicious, growing superintendent, a man who is alive and sane.

The number of qualified teachers would be larger if those in service should unite in associations for mutual help in self-culture. Mutual aid is one of the universal factors in social progress. No profession can be lifted up by forces wholly

outside of itself. Normal schools and superintendents may do their best, but improvement will be narrow and short-lived unless the teachers take up the work and carry it on. Some suggestions for the organization of the teaching forces of the State will be found in another part of this report.

Some provision should be made in every city and town of considerable size, where the teaching force is permanent, for ascertaining whether individual teachers are growing in scholarship and professional intelligence or whether they are simply rooted in their places. Periodical inquiries, not necessarily in the form of examinations, should be made to give teachers an opportunity to show what they are doing in the way of special study for self-culture, or how they are making themselves useful in a social way. In cities where teaching positions exist carrying special salaries for which there is striving, growth through special study should be a prerequisite for promotion.

In cities and towns where the principle, "The schools are for our own girls," determines the selection of teachers, so that non-resident teachers are excluded, the inevitable tendency is towards dry-rot in the school system. Teachers chosen because of residence and not because of superior qualifications, rooted in home and church and society, and buttressed by personal influences, are the plague and despair of live superintendents. If the superintendent himself yields to the soporific influence, the schools settle into a dead routine, and by and by come to take pride in their own stagnation, to magnify the machinery of school-keeping, and to sneer at the life about them which they have no ambition to imitate.

QUALIFICATIONS OF HIGH SCHOOL TEACHERS.

When the State began the work of training teachers in normal schools there were but few high schools. As these schools slowly increased in numbers, many of the more advanced students from the normal schools found their way into them as teachers. With the advent of women's colleges, the more scholarly of the young women intending to teach were drawn away from the normal schools; and the high schools now rapidly multiplying in numbers sought their teachers among the graduates of colleges.

It has come about that the high schools are being annually recruited from college graduates who have such scholarship as a college diploma may stand for, but who have had no training and no experience, and have had no previous opportunity in a practice school to show whether they have any aptness to teach. It is difficult to say where the untrained and inexperienced teacher is likely to do the most harm, but certainly young women just out of college are capable of doing a good deal of mischief when put in charge of classes in high schools made up of boys and girls who have just come from the wise, patient, skilful, experienced teachers who are in charge of the upper classes of the grammar schools.

In a report to the Board made by the writer in 1884, after an inspection of the high schools of the State, the statement occurs: "My observation leads me to conclude that untrained teachers are much alike, whether they have been graduated from a college or only from a district school."

The time is passed when it is necessary to argue in favor of a study of education as a preparation for teaching. In the early days of the normal schools the opposition to them came chiefly from the higher institutions of learning. Now the colleges and universities have so far come under the influence of the modern spirit as to establish chairs of pedagogy. But none of the college courses are substantial enough or complete enough to serve the purpose of training teachers for secondary schools.

There is need of a special school for the purpose, and sooner or later the State will be called upon to provide it. Such a school would not be large and need not be expensive. It would have three distinct lines of work: first, philosophic work in the study of general psychology and the special psychology of adolescence; second, pedagogical work in general method and a review of the studies of the secondary schools with reference to their educational aim, value and peculiar method; third, practice work in some good high school under normal conditions of teaching but under the supervision of skilled instructors. The pedagogical work would be simpler than in the existing normal schools, where the students preparing to teach in the elementary schools must review from the

teaching standpoint all the studies of these schools because they must be ready to teach them all. In the secondary schools the departmental system relieves the teachers from the necessity of knowing all subjects and knowing how to teach them all. In the new school, therefore, the student would be called upon to study but a few branches thoroughly as to scope, aim and method. Such a course would require less time than is now spent in the normal schools.

For this part of the work it might not be necessary or desirable to employ permanent teachers. Experienced teachers, noted for their breadth, sympathy and teaching skill, might be used to present their own special branches. Coming fresh from their own class-rooms and studying their subjects from the pedagogical side for the purpose of instructing neophytes, they would have a freshness and enthusiasm sometimes lacking in permanent instructors in normal schools. This part of the work might be done by these teachers in their own class-rooms and laboratories, so that the equipment of the school might be simple and inexpensive.

Were such a school to be established by the State, the colleges would be relieved from the pressure now upon them to do something in a professional way for the prospective teachers among their students, and possibly the students might thus save some time from the college course for this more substantial professional work.

The plan which I have thus tentatively sketched is for the sole purpose of preparing college graduates for work in high schools. This work should be kept distinct from the preparation of college graduates for work in the elementary schools of which I have spoken before.

I have ventured to throw out these suggestions for a new school because the high schools have assumed such importance in our system. Massachusetts is the only State which makes provision for a free high school education for all its children. That this education may be more than a name, the teachers must know how to teach. "As is the teacher, so is the school" is as profoundly true as it was when the Massachusetts reformers first preached it seventy-five years ago.

SUPERVISION OF SCHOOLS BY SUPERINTENDENTS.

Massachusetts has taken the lead of the States in putting all the public schools under the immediate supervision and control of professional superintendents. These officials are chosen by local school boards either in single towns and cities or by small groups of towns.

Number of superintendents now in service,	187
Number employed by single cities or towns,	102
Number employed in union districts,	81
With State aid,	73
With partial State aid,	8
Without State aid,	4
Cost of supervision by superintendents,	\$338,751 72
Part paid by State, 1904,	93,224 99

Unions for the employment of a superintendent vary in the number of towns comprising them and in the number of schools.

Unions of 2 towns,	26
Average number of schools in each union,	29.3
Unions of 3 towns,	29
Average number of schools in each union,	30.4
Unions of 4 towns,	23
Average number of schools in each union,	28.7
Unions of 6 towns,	2
Average number of schools in each union,	27.5

All of these unions have been formed since the law of 1888, offering State aid. The following table of unions now in existence shows how the system has developed gradually :—

Formed in 1888,	1 union with 3 towns
Formed in 1889,	3 unions with 9 towns.
Formed in 1890,	5 unions with 16 towns.
Formed in 1891,	6 unions with 15 towns.
Formed in 1892,	4 unions with 11 towns.
Formed in 1893,	4 unions with 10 towns.
Formed in 1894,	6 unions with 17 towns.
Formed in 1895,	5 unions with 15 towns.
Formed in 1896,	2 unions with 6 towns
Formed in 1897,	3 unions with 10 towns.
Formed in 1898,	4 unions with 12 towns.
Formed in 1899,	2 unions with 4 towns.
Formed in 1900,	6 unions with 19 towns
Formed in 1901,	12 unions with 38 towns.

Formed in 1902,	12 unions with 38 towns.
Formed in 1903,	5 unions with 14 towns.
Formed in 1904,	2 unions with 4 towns.

Unions since 1900 have been formed under compulsion.

Five towns now remain outside of union districts, and by so doing are in violation of the law, — Ashburnham, Boxford, Middleton, Nantucket and Gosnold. Some of these towns have been in unions but withdrew on account of dissatisfaction with conditions, and have not been able to form new alliances.

Much interest has been manifest throughout the country in the working of this system. It may be said in general that, to persons familiar with the intense feeling of local independence in Massachusetts towns and the jealousies and rivalries which often exist between them when contiguous, the friction developed in the working of the system has been surprisingly small. The joint committees on whom has fallen the burden of organizing the unions and adjusting the burdens have shown fairness, consideration and good sense in the great majority of cases. Whenever trouble has arisen it has been due to the difference of opinion as to the qualifications of the superintendents, and the superintendents have not always helped to make matters go more smoothly.

When the Board of Education through its secretary and agents was urging the general employment of superintendents, the towns were told that certain advantages were sure to accrue to the schools. They would be better graded and classified, the attendance would be more regular, the teachers would be selected with greater care and would be stimulated to better work, and the schoolhouses, premises and property would be better cared for. In general, these promises have been made good. All of these improvements have come to many towns. Some of them have come to all towns.

Some one has said that it will be time to discuss the question whether Christianity is a failure when it has been tried. So superintendency has not yet had a fair trial. This is partly the fault of the superintendents themselves and partly that of the committees and people. The office is still a comparatively new one, and has not yet everywhere made for itself a place in the public esteem. Some of the men who have entered the service have lacked experience in school matters,

some have failed in other employments, many have been deficient in discretion and tact. On the other hand, some school committees have been jealous of the new office. This has been conspicuously true in towns where the superintendency has been established by the people against the voice of the committee, as has happened in a large number of cases. In these cases the superintendent has been narrowly limited in the scope of his functions and harassed in petty ways in the discharge of his duties.

The law establishing the office makes this possible. The superintendent has no specific powers or duties. He is to have the "care and supervision of the public schools," "under the direction and control of the school committee." The committee may delegate to him few or many of its functions. It may hamper him by narrow restrictions or it may give him large freedom. It may leave him to the tender mercies of a critical public or it may give him generous backing in his plans and efforts. As the committee in any town or city or group of towns deals with the superintendent, professional supervision will succeed or fail in that community.

Now that the State has permanently adopted the policy of supervision by superintendents chosen by the school committees and subject to their direction and control, it is imperative that the committees should recognize their own responsibility, not only to their own community but to the State, and should meet the conditions necessary to make the office successful. These conditions are not numerous nor burdensome. The superintendent should be selected with care, given full opportunity, and be held to strict accountability. He should be selected because he is a scholar and a gentleman, and because he has had successful experience in teaching and supervising. He should be a person of some maturity and with some experience in the world to give him wisdom and common sense. So far as testimony as to his qualifications is needed and sought, it should not be the testimony of interested parties.

An editorial in the "Springfield Daily Republican," Nov. 15, 1904, expresses so clearly and forcibly the claims of the office of superintendent upon the public confidence and support that it is here given in full:—

THE STATUS OF THE SCHOOL SUPERINTENDENT.

These fall weeks, with the renewed activities of teachers and pupils, bring into prominence the work of the superintendent of schools. By reason of the vital interests of popular education and the weighty responsibilities committed to these officials, no educational service, not even that of the heads of universities and colleges, should be regarded as more potent in determining the trend of national life. This service is for the most part rendered with courage, intelligence and consistent devotion to duty, and in many instances by men of conspicuous ability and force of character.

It is wise policy for any community to emphasize the value and dignity of the office of its superintendent of public instruction, and to furnish the conditions that make for effective and untrammelled service. Such an attitude is demanded by merely monetary considerations. The superintendent is paid — and rightly so — a large salary; in many towns and cities the largest of any official. It is poor economy to require him to spend any considerable portion of time in routine clerical duties, or to devote his energy in combating factional quarrels or political intrigues in the school committee.

On the higher ground of the betterment and well-being of our public school system the argument for granting large powers and liberty of action to the superintendent is still stronger. The scheme of popular education is now become so complex, and involves so many delicate relations between parents, pupils and teachers, that executive ability of the highest order is needed for its proper direction. Knowledge of child nature and development, comprehension of social and industrial conditions, and insight into our national needs are required for the formulation of right courses of study and wise supervision of instruction.

Only as communities make the work of school superintendent attractive to men of large calibre of mind and heart can they hope to secure competent service. Yet it is a well known fact that within recent years selfish influences have gained ground and too often control in many school boards. Cities in New England could be named where a large part of the time and strength of the superintendent is spent in contending against low standards and political wire-pulling for personal and narrow ends in the school committee. Men of ability and high purpose have left a work they loved because of their unwillingness to labor under such conditions. Signs are not wanting that, unless the position of school superintendent is freed from these all too common and needless embarrassments, competent men will no longer seek this vocation, and the work of supervision will fall into

the hands of office-holders of mediocre ability, to the detriment of the cause of popular education.

The remedy lies in the careful selection of members of school boards, and in the elimination of all elements of personal partisan ambition from the counsels of those charged with the safeguarding of the schools of the people. A small body of men and women, elected by vote of the entire community and chosen with a view to their intelligent public spirit, sound judgment and genuine good will toward the schools, will insure the superintendent generous, high-minded treatment in his work.

Such a committee will recognize that many matters — the selection of text books, the choice of teachers, questions of discipline, promotion and graduation — must be settled by the expert educator. So also with him must rest the decision regarding courses of study and methods of instruction. On the other hand, a representative committee will at times find it necessary to counsel the superintendent against undertaking plans that call for too large expenditure, and to impress him with the need of a more conservative policy if he pushes on too fast for the people to follow. But such a board will recognize that oftentimes they must support a superintendent who is leading a community to higher levels of educational achievement in the face of unintelligent criticism. But whether supporting, checking or defending, the committee will hold toward its superintendent a generous attitude, free from petty bickerings, in mutual helpfulness for a common cause.

EXAMINATION OF SUPERINTENDENTS.

The Legislature of 1904 wisely undertook to safeguard the interests of the State in union districts where half the salary of the superintendent is paid from the treasury of the Commonwealth by enacting the following law : —

[CHAPTER 215, ACTS OF 1904.]

In all superintendency unions in which any part of the expense of the superintendent is borne by the commonwealth the state board of education shall determine, by examination or otherwise, the qualifications of candidates for the position of superintendent of public schools; and, after the first day of January in the year nineteen hundred and five, no person shall be elected to such position who does not hold a certificate of fitness and competency from said board: *provided, however*, that this act shall not apply to any superintendency union in which one town does not receive aid from the com-

monwealth for expense of a superintendent, until the termination of the contract, if any, existing between such towns at the time of the passage of this act.

Approved April 9, 1904.

The secretary was empowered by the Board to carry out the provisions of the law. Accordingly, an examination of candidates for the position of superintendents in union districts was held in Boston and Pittsfield on October 7. This was limited to persons not now in service in the State as superintendents. Personal records and testimonials as to character and experience were filed and papers written in answer to questions on the school laws of the State and on the principles of school management and supervision. Nine persons applied for approval to five of whom certificates have been granted, good for one year and renewable.

The fitness of each of those persons who are now engaged in supervision within the State has been determined by the testimonials of school committees and others, and by the reports of two agents of the Board, based on an inspection of the candidate in his respective district.

Certificates have been granted to sixty-four of these applicants. These certificates are good for one, three or five years. There are no unlimited certificates, but all are renewable.

Under the terms of the law, committees in superintendency unions in which all the towns receive State aid for the superintendent's salary must select a person holding one of these certificates. They should see the certificate and see that it has not expired.

These certificates will be renewed by the Board on application, if the candidate can show to the Board of Education through its agents that his work has been satisfactory.

Form of Certificate.

MASSACHUSETTS BOARD OF EDUCATION.

SUPERINTENDENT'S CERTIFICATE.

This is to certify that
is approved by the State Board of Education for _____ years
for the position of superintendent of schools in the superintendency
unions in Massachusetts.

Secretary.

SPECIAL PREPARATION OF SUPERINTENDENTS.

Superintendents who wish to make a serious study of their work might profitably plan to spend five full weeks for at least three or four succeeding summers at Hyannis in pursuit of the following course, or some modification of the same, but the work of a single summer would be of great value even to superintendents of considerable experience.

A COURSE OF STUDY FOR SUPERINTENDENTS OF SCHOOLS.

First Summer.

Supervision,	3 weeks.
The making of elementary courses of study,	2 weeks.
Psychology,	5 weeks.

Second Summer.

Pedagogy,	5 weeks.
Methods in geography,	5 weeks.

Third Summer.

Biology, with methods in nature study,	5 weeks.
Methods in arithmetic,	5 weeks.

Fourth Summer.

Industrial education,	5 weeks.
History of education,	5 weeks.

Alternates: methods in music, drawing and English.

Note.— In connection with each subject some opportunity is given for observation of children at work.

Full particulars may be obtained from the principal of the school.

Every new superintendent needs help along three distinct lines, viz. :—

1. The administrative duties of his office.
2. The making of courses of studies.
3. The training of teachers in modern pedagogy.

In view of the fact that there are in Massachusetts at this time so many superintendents who are anxious to avail themselves of assistance along one or all of these lines, it has seemed best to arrange with the Hyannis Summer Normal School to offer a course in supervision which will deal with numbers 1 and 2, and to designate several courses in which superintendents may receive help in number 3.

List of superintendents, Dec. 31, 1904, alphabetically arranged, with their superintendencies.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Adams, Charles F., . . .	\$1,500	Spencer, . . .	Spencer.
Adams, O. H., . . .	1,600	Warren, . . .	Holland, Wales, Warren.
Aldrich, George I., . . .	4,000	Brookline, . . .	Brookline.
Allen, H. L., . . .	1,500	Dalton, . . .	Cheshire, Dalton.
Anthony, John C., . . .	1,600	East Weymouth, .	Weymouth.
Armstrong, George P., . .	2,500	Belmont, . . .	Belmont, Hudson.
Atwell, F. G., . . .	1,500	Baldwinsville, .	Hubbardston, Phillipston, Royalston, Templeton.
Averill, Andrew P., . . .	1,600	Edgartown, . . .	Chilmark, Cottage City, Edgartown, Gay Head, Tisbury, West Tisbury.
Ayers, James A., . . .	1,700	Stockbridge, . . .	Stockbridge.
Badger, Abner A., . . .	1,800	Walpole, . . .	Medfield, Walpole.
Bagnall, Francis A., . . .	2,400	Adams, . . .	Adams.
Barbour, Albert L., . . .	2,000	Natick, . . .	Natick.
Barr, Preston, . . .	1,600	Lee, . . .	Lee, Monterey, Otis, Tyringham.
Bates, Charles H., . . .	1,700	Middleborough, .	Middleborough.
Bates, William C., . . .	3,300	Fall River, . . .	Fall River.
Bemis, George M., . . .	1,500	Brookfield, . . .	Brookfield, North Brookfield.
Benedict, Frank H., . . .	1,500	Auburn, . . .	Auburn, Sutton.
Blodgett, S. F., . . .	2,000	South Framingham.	Framingham.
Bowman, Mortimer H., . .	1,500	Barre, . . .	Barre, Hardwick, Petersham.
Boyden, C. F., . . .	2,400	Taunton, . . .	Taunton.
Bradley, John E., . . .	1,500	Randolph, . . .	Avon, Holbrook, Randolph.
Brehaut, James W.,* . . .	1,841	North Attleborough.	North Attleborough.
Breck, Charles A., . . .	1,000	Methuen, . . .	Methuen.
Brick, Francis S., . . .	1,650	Uxbridge, . . .	Douglas, Uxbridge.
Brockway, Clarence E., . .	1,600	West Springfield, .	West Springfield.
Brooks, Stratton D.,† . . .	3,780	Boston, . . .	Boston.
Burke, John E.,† . . .	3,780	Boston, . . .	Boston.
Byram, Charles A., . . .	2,300	Pittsfield, . . .	Pittsfield.
Carlisle, Ellor E.,† . . .	3,780	Boston, . . .	Boston.
Carr, Ernest P., . . .	1,500	North Dartmouth,	Dartmouth, Westport.
Chace, Seth Howard, . . .	1,600	Ayer, . . .	Ayer, West Boylston.
Chaffin, W. E., . . .	1,500	West Dennis, . .	Brewster, Dennis, Yarmouth.
Chapman, John L., Jr., . .	1,500	Chester, . . .	Becket, Chester, Middlefield, Washington.
Chickering, George E., . .	1,525	81 Berkeley Street, Lawrence.	Merrimac, North Andover.
Clapp, George I., . . .	1,800	Woburn, . . .	Woburn.
Clay, Charles L., . . .	1,530	Harvard, . . .	Bolton, Boylston, Harvard, Shirley.

* Unites teaching with supervising.

† Supervisor.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Cogswell, Francis, . . .	\$3,500	Cambridge, . . .	Cambridge.
Collins, Arthur J., . . .	1,500	Danvers, . . .	Danvers.
Conley, George H., . . .	6,000	Boston, . . .	Boston.
Corbin, F. E.,* . . .	2,000	Southbridge, . . .	Southbridge.
Corlew, Joseph T., . . .	1,500	Cochituate, . . .	Dover, Sudbury, Wayland.
Cox, George W., . . .	2,000	Ware, . . .	Ware.
Cragin, W. N., . . .	1,700	Bedford, . . .	Bedford, Burlington, Lincoln, Wilmington.
Cummings, William H., . . .	1,500	Hatfield, . . .	Bernardston, Hadley, Hatfield.
Danforth, G. H., . . .	2,000	Greenfield, . . .	Greenfield.
Davis, Josiah B., . . .	889	Millville, . . .	Blackstone.
Davison, F. P., . . .	1,600	Turner's Falls, . . .	Montague.
Dixon, Edward, . . .	1,500	Orange, . . .	Orange.
Douglas, Frank A.,* . . .	1,600	Winthrop, . . .	Winthrop.
Draper, Frank O., . . .	2,500	Hyde Park, . . .	Hyde Park.
Dressel, Herman, Jr., . . .	1,500	Great Barrington, . . .	Great Barrington.
Eaton, Charles M.,* . . .	1,900	Weston, . . .	Weston.
Eaton, William L.,* . . .	2,790	Concord, . . .	Concord.
Edgerly, Joseph G., . . .	2,700	Fitchburg, . . .	Fitchburg.
Evans, Osman C., . . .	1,500	North Easton, . . .	Easton.
Fish, Charles E., . . .	1,500	Manchester, . . .	Manchester.
Fitts, Edward P., . . .	1,650	Mansfield, . . .	Mansfield, Sharon, Stoughton.
Freeman, L. A., . . .	1,500	Foxborough, . . .	Foxborough, West Newbury.
Fuller, Robert J., . . .	1,700	Palmer, . . .	Palmer.
Gamwell, Irving H.,* . . .	1,800	Franklin, . . .	Franklin.
Gifford, John B., . . .	1,800	Marblehead, . . .	Marblehead, Newbury, Salisbury.
Godard, Harlow, . . .	1,500	Lenox, . . .	Lenox.
Goodhue, E. W., . . .	1,500	Haydenville, . . .	Chesterfield, Williamsburg, Worthington.
Goodwin, Charles W., . . .	1,535	West Brookfield, . . .	New Braintree, Sturbridge, West Brookfield.
Gordy, Wilbur F., . . .	4,000	Springfield, . . .	Springfield.
Gray, John C., . . .	2,000	Chicopee, . . .	Chicopee.
Gregory, B. C., . . .	2,800	Chelsea, . . .	Chelsea.
Grout, Edgar H., . . .	1,500	East Bridgewater, . . .	East Bridgewater, Raynham, West Bridgewater.
Grover, G. Alvin, . . .	1,600	Charlemont, . . .	Charlemont, Florida, Hawley, Heath, Monroe, Rowe.
Gushee, W. E., . . .	1,500	Agawam, . . .	Agawam, Ludlow.
Haley, C. W., . . .	1,700	Milford, . . .	Milford.
Hall, Charles P., . . .	1,500	Shelburne Falls, . . .	Buckland, Colrain, Shelburne.
Hall, I. Freeman, . . .	2,850	North Adams, . . .	North Adams.
Hardy, A. L., . . .	1,800	Amherst, . . .	Amherst, Pelham.

* Unites teaching with supervising.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Hatch, William E., . .	\$4,000	New Bedford, .	New Bedford.
Hayward, Harriet S., Ass't,	1,000	Brockton, . .	Brockton.
Heavens, Francis J., . .	2,000	Plymouth, . .	Plymouth.
Herron, Schuyler F., . .	1,800	Northampton, .	Northampton.
Hervey, Henry D., . .	2,500	Malden, . . .	Malden.
Hill, Frank H., . . .	1,600	Harwich, . .	Chatham, Eastham, Harwich, Orleans.
Hine, Roderick W., . .	2,200	Dedham, . .	Dedham.
Hobbs, W. C., . . .	1,800	Norwood, . .	Norwood.
Holmes, Stanley H., . .	2,300	Haverhill, . .	Haverhill.
Howard, Elmer F., . .	1,500	East Northfield, .	Gill, Leyden, Northfield, Warwick.
Howard, Nelson G., . .	2,300	Hingham Centre, .	Cohasset, Hingham, Hull.
Howes, Alfred F., . .	1,500	Sheffield, . .	Mount Washington, New Marlborough, Sheffield.
Humphrey, Chester W., .	1,500	Rochester, . .	Carver, Lakeville, Rochester.
Hunt, Charles L., . .	1,800	Clinton, . . .	Clinton.
Hutchinson, S. C., . .	1,500	Dighton, . .	Berkley, Dighton, Rehoboth.
Jacoby, Asher J., . .	2,400	East Milton, . .	Milton.
Johnson, G. E., . . .	1,800	223 Parkview Ave., Lowell.	Dracut, North Reading, Tewksbury, Tyngsborough.
Jones, Herbert J., . .	1,600	Holden, . . .	Holden, Oakham, Paxton, Rutland.
Kelly, William P., . .	2,000	Attleborough, .	Attleborough.
Kendall, F. L., . . .	1,500	Chelmsford, . .	Carlisle, Chelmsford, Dun- stable.
Kingman, F. W., . .	1,500	Hyannis, . .	Barnstable.
Knox, Herman N., . .	1,600	Somerset, . .	Freetown, Seekonk, Somerset, Swansea.
Lea, Watson C., . . .	1,600	Oxford, . . .	Millbury, Oxford.
Lewis, Alvan R., . . .	1,500	Provincetown, .	Provincetown, Truro, Well- fleet.
Lewis, Mary A., Ass't,	1,200	Cambridge, . .	Cambridge.
Lewis, Homer P., . .	4,000	Worcester, . .	Worcester.
Lincoln, Mary L., . .	1,000	Lancaster, . .	Lancaster.
Locke, David B., . .	1,600	Winchendon, .	Lunenburg, Winchendon.
Loring, Everett G., . .	1,500	Kingston, . .	Halifax, Kingston, Pembroke, Plympton.
Lunt, William P., . .	1,200	Newburyport, .	Newburyport.
Lyman, C. S., . . .	1,800	Amesbury, . .	Amesbury.
MacDongall, James A., .	1,500	Braintree, . .	Braintree.
Mackin, John C., . .	1,500	Maynard, . .	Boxborough, Maynard, Stow.
Manning, John H.,* . .	1,550	Groton, . . .	Groton
Marsh, Frank M., . .	1,800	Fairhaven, . .	Acushnet, Fairhaven, Matta- poisett.
Martin, Robert M.,† . .	700	12½ Hathorne Street, Salem.	Swampscott.
Mason, Wallace E., . .	1,500	Charlton, . .	Charlton, Leicester.
Melcher, S. A.,* . . .	2,250	Whitinsville, .	Northbridge.

* Unites teaching with supervising.

† Supervises two days only per week.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Merriam, B. J., . . .	\$1,500	Granville, . . .	Granville, Tolland, Sandisfield, Southwick.
Metcalf, Robert C., . .	2,000	Winchester, . . .	Winchester.
Miller, W. D., . . .	1,600	Easthampton, . .	Easthampton, Southampton, Westhampton.
Minard, G. C., . . .	1,500	Wrentham, . . .	Norton, Wrentham.
Mitchell, Walter G., . .	1,200	Williamstown, . .	Williamstown.
Morss, Charles H., . . .	2,800	Medford, . . .	Medford.
Morton, Orion A., . . .	1,500	Georgetown, . . .	Georgetown, Groveland, Rowley.
Nash, Louis P., . . .	3,000	Holyoke, . . .	Holyoke.
Nickerson, Fred H., . .	2,200	Melrose, . . .	Melrose.
Page, Frank R., . . .	1,950	Watertown, . . .	Watertown.
Palmer, Corwin F., . . .	1,800	Andover, . . .	Andover.
Parker, Walter S.,* . .	3,780	Boston, . . .	Boston.
Parkinson, William D., .	2,200	Waltham, . . .	Waltham.
Parlin, Frank E., . . .	2,500	Wollaston, . . .	Quincy.
Peaslee, Frank J., . . .	2,700	Lynn, . . .	Lynn.
Perkins, James S., . . .	1,800	Canton, . . .	Canton.
Perkins, John W., . . .	2,500	Salem, . . .	Salem.
Perrin, Marshall L.,† . .	1,500	Wellesley Hills, . .	Wellesley.
Pitman, J. Asbury, . . .	2,100	Marlborough, . .	Marlborough.
Poland, Mary L., . . .	1,550	15 Myrtle Street, Springfield.	East Longmeadow, Hampden, Longmeadow, Wilbraham.
Pope, F. S., Jr., . . .	1,500	Sandwich, . . .	Bourne, Mashpee, Sandwich.
Porter, Henry W.,† . . .	1,900	Lexington, . . .	Lexington.
Pratt, Louis A., . . .	1,500	North Dana, . . .	Dana, Greenwich, New Salem, Prescott.
Price, Wilfred H., . . .	1,550	Holliston, . . .	Holliston, Medway, Sherborn.
Putney, Freeman, . . .	2,300	Gloucester, . . .	Gloucester.
Rafter, Augustine L.,* . .	3,780	Boston, . . .	Boston.
Record, C. A., . . .	1,500	Assinippi, . . .	Hanover, Hanson, Norwell.
Richardson, Herbert E., .	1,600	Littleton, . . .	Acton, Littleton, Westford.
Riley, William E., . . .	1,500	Hinsdale, . . .	Hinsdale, Peru, Savoy, Windsor.
Robinson, Albert, . . .	1,700	Peabody, . . .	Peabody.
Robinson, Ernest W., . .	1,800	Webster, . . .	Dudley, Webster.
Rugg, George, . . .	1,500	Princeton, . . .	Princeton, Sterling, Westminster.
Russell, B. B., . . .	2,800	Brockton, . . .	Brockton.
Safford, Adelbert L., . .	2,200	Beverly, . . .	Beverly.
Sanborn, J. H., . . .	1,500	Belchertown, . .	Belchertown, Enfield.
Sanderson, W. H., . . .	2,200	Bridgewater, . .	Abington, Bridgewater.
Sheridan, Bernard M., . .	3,000	Lawrence, . . .	Lawrence.
Simmons, Charles L., . .	2,100	Westfield, . . .	Westfield.

* Supervisor.

† Unites teaching with supervising.

List of superintendents, alphabetically arranged, with their superintendencies — Concluded.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Sims, William F., . .	\$1,500	Northborough, .	Berlin, Northborough, Shrewsbury, Southborough.
Small, Robert O., . .	1,600	Grafton, . .	Grafton, Upton.
Southworth, Gordon A., .	3,000	Somerville, . .	Somerville.
Spaulding, Frank E., . .	4,000	Newtonville, . .	Newton.
Stanger, Asa O., . . .	1,400	Falmouth, . . .	Falmouth.
Stearns, Mrs. Cora A., . .	1,500	Wendell Depot, .	Erving, Leverett, Shutesbury, Wendell.
Stevens, Charles E., . .	2,000	Stoneham, . . .	Saugus, Stoneham.
Stone, Melville A., . . .	1,500	Reading, . . .	Reading, Topsfield.
Sutcliffe, Frank S.,* . .	2,500	Arlington, . . .	Arlington.
Sweet, Frank W., . . .	1,500	West Stockbridge, .	Alford, Egremont, Richmond, West Stockbridge.
Tangney, James H., . . .	1,000	Rockland, . . .	Rockland.
Taylor, Herbert F., . . .	1,800	Hopedale, . . .	Bellingham, Hopedale, Mendon.
Thompson, Alfred C., . .	2,000	Wakefield, . . .	Lynnfield, Wakefield.
Thompson, Andrew S., . .	1,600	Ipswich, . . .	Essex, Hamilton, Ipswich, Wenham.
Thompson, Thomas E., . .	2,000	Leominster, . . .	Leominster.
Thompson, Victor V., . .	1,500	Hopkinton, . . .	Ashland, Hopkinton.
Tower, Alfred O., . . .	1,500	Pepperell, . . .	Billerica, Pepperell.
Tuttle, O. A.,*	1,250	Nahant,	Nahant.
Van Ornum, F. B., . . .	1,500	Cheshire, . . .	Clarksburg, Hancock, Lanesborough, New Ashford.
Waldron, H. C.,*	1,600	Westborough, . .	Westborough.
Walradt, Henry M., . . .	1,800	Whitman, . . .	Needham, Whitman.
Ward, W. Scott,	1,900	Athol,	Athol.
Warren, J. E.,	1,500	Huntington, . . .	Blandford, Huntington, Montgomery, Russell.
Webber, Arthur B., . . .	1,500	Ashfield,	Ashfield, Cummington, Goshen, Plainfield.
West, M. J.,	1,500	Millis,	Millis, Norfolk, Westwood.
Wheeler, F. A.,	1,500	Monson,	Brimfield, Monson.
Wheeler, Ulysses G., . .	2,500	Everett,	Everett.
Whitcomb, Arthur K., . .	3,000	Lowell,	Lowell.
White, Maurice P.,† . . .	3,780	Boston,	Boston.
Whitney, Fairfield, . . .	1,500	Townsend, . . .	Ashby, Townsend.
Whittemore, F. E., . . .	1,500	South Hadley, . .	Granby, South Hadley.
Willard, Edgar L., . . .	1,500	Marshfield Hills, .	Duxbury, Marshfield, Seitate.
Willson, Myron J., . . .	1,500	South Deerfield, .	Conway, Deerfield, Sunderland, Whately.
Winslow, William H., . .	2,000	Revere,	Revere.
Wood, Judson I., . . .	2,100	Gardner,	Gardner.
Woodward, Hervey L., . .	900	Rockport, . . .	Rockport.
- -	-	- -	Marion, Wareham.

* Unites teaching with supervising.

† Supervisor.

Table of Superintendency Unions, Dec. 31, 1904.

Number.	UNIONS.	When formed.	AT TIME OF FOR- MATION.		EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid to each town.	Superintend- ent's salary.	When super- intendent's year begins.	JOINT COMMITTEE.	
			Valuation.	Number of schools.	Service.	Salary.				Chairman.	Secretary.
1	Duxbury, Marshfield, Scituate, . . .	. 1888 . 1888 . 1888	\$1,157,606 1,075,365 1,837,275	10 9 13	$\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$	\$250 00 250 00 250 00	\$416 67 416 66 416 67	\$1,500 00	July 1,	Burton A. Lucas, Marshfield.	Clara M. Skeele, Scituate.
2	Innabardston, Phillipston, Royalston, Templeton, . .	. 1889 . 1889 . 1889 . 1889	711,450 272,664 623,161 1,115,871	10 4 9 16	$\frac{7}{10}$ $\frac{1}{10}$ $\frac{2}{10}$ $\frac{5}{10}$	150 00 75 00 150 00 375 00	250 00 125 00 250 00 625 00	1,500 00	July 1,	S. E. Greenwood, Templeton.	Mrs. Mary R. Chafin, Phillipston.
3	Ashland, Hopkinton, . .	. 1889 . 1889	1,290,901 2,222,035	12 21	$\frac{2}{3}$ $\frac{2}{3}$	300 00 450 00	500 00 750 00	1,500 00	July 1,	Walter G. Whittemore, Ashland.	William H. Terry, Hopkinton.
4	Easthampton Southampton, Westhampton, .	. 1889 . 1889 . 1889	2,292,425 491,362 252,198	20 7 4	12 days. 5 days. 3 days.	612 68 80 88 56 44	1,021 13 134 80 94 07	1,600 00	July 1,	Charles H. Johnson, Easthampton.	Charles N. Loud, Westhampton.
5	Barre, Hardwick, Petersham, . .	. 1890 . 1890 . 1890	1,449,226 1,402,815 592,297	12 14 9	$\frac{1}{3}$ $\frac{1}{3}$ $\frac{7}{8}$	286 76 308 82 154 42	477 93 514 69 237 38	1,500 00	May 1,	George A. Brown, Barre.	M. H. Davis, Hardwick.
6	Berlin, Northborough, Shrewsbury, Southborough, .	. 1890 . 1890 . 1890 . 1890	495,996 1,254,092 1,168,670 1,371,738	5 8 9 10	$\frac{1}{4}$ $\frac{2}{7}$ $\frac{2}{7}$ $\frac{4}{7}$	107 40 214 20 214 20 214 20	179 00 337 00 337 00 337 00	1,500 00	May 1,	Daniel W. Bemis, Shrewsbury.	Cora L. Jones, Northborough.
7	Becket, Chester, Middlefield, Washington, . .	. 1890 . 1890 . 1890 . 1890	333,858 520,480 237,685 291,889	8 10 7 7	1.35 per week. 2.20 per week. .86 per week. .59 per week.	202 47 329 49 129 72 88 32	337 45 549 15 216 20 147 20	1,500 00	July 1,	Sherwin M. Flint, Chester.	M. D. E. Tower, Becket.
8	Brimfield, Monson, . . .	. 1890 . 1890	425,800 1,757,753	9 20	$\frac{3}{10}$ $\frac{7}{10}$	225 00 525 00	375 00 875 00	1,500 00	April 30,	R. V. Savin, Brimfield.	R. S. Stebbins, Monson.

9	Princeton, Sterling, Westminster,	• • •	1890 1890 1890	817,346 848,333 761,617	8	$\frac{1}{16}$ $\frac{2}{16}$ $\frac{2}{16}$	150 00 300 00 300 00	250 00 500 00 500 00	July 1,	Thurston Buck, West Sterling.	Mary A. Dupee, Westminster.
10	Mansfield, Sharon, Stoughton,	• • •	1891 1891 1891	1,644,112 1,231,591 2,403,890	15 7 16	$\frac{2}{16}$ $\frac{7}{16}$ $\frac{2}{16}$	300 00 150 00 300 00	500 00 250 00 500 00	April 9,	Joseph Willson, Mansfield,	Lena A. Cobbett, Stoughton.
11	Dracut, North Reading, Tewksbury, Tyngsborough,	• • • •	1891 1891 1891 1891	1,603,492 536,048 1,400,083 372,697	12 6 10 7	$\frac{4}{16}$ $\frac{1}{16}$ $\frac{4}{16}$ $\frac{1}{16}$	300 00 75 00 300 00 75 00	500 00 125 00 500 00 125 00	Sept. 1,	Charles L. Hodge, Dracut.	Ellen L. Perlman, Tyngsborough.
12	Brookfield, North Brookfield,	• •	1891 1891	1,294,448 1,710,555	16 16	$\frac{1}{16}$ $\frac{1}{16}$	375 00 375 00	625 00 625 00	May 13,	W. F. Hayward, East Brookfield.	Timothy Howard, North Brookfield.
13	Grafton, Upton,	• •	1891 1891	2,351,355 926,611	24 10	$\frac{3}{16}$ $\frac{1}{16}$	562 50 187 50	937 50 312 50	July 1,	Francis M. McGarry, Grafton.	Appleton P. Williams, West Upton.
14	Millbury, Oxford,	• •	1891 1891	2,103,061 1,296,860	16 12	60 per cent. 40 per cent.	450 00 300 00	750 00 500 00	Aug. 1,	Thomas H. Sullivan, Millbury.	Edwin N. Bartlett, Oxford.
15	Abington, Bridgewater,	• •	1891 1891	2,209,723 2,363,676	15 17	$\frac{1}{16}$ $\frac{1}{16}$	375 00 375 00	625 00 625 00	Aug. 1,	H. M. Blackstone, Bridgewater.	Richard B. Rand, North Abington.
16	Buckland, Colrain, Shelburne,	• • •	1892 1892 1892	537,682 565,828 890,840	9 15 10	$\frac{3}{16}$ $\frac{4}{16}$ $\frac{3}{16}$	225 00 300 00 225 00	375 00 500 00 375 00	April 24,	Edwin Baker, Shel- burne Falls.	Jonathan E. Daven- port, Colrain.
17	Bourne, Mashpee, Sandwich,	• • •	1892 1892 1892	1,465,575 179,370 849,300	11 2 11	$\frac{9}{20}$ $\frac{2}{20}$ $\frac{9}{20}$	337 50 75 00 337 50	562 50 125 00 562 50	July 1,	Charles H. Ham- mond, Mashpee.	Elizabeth Clark, Sandwich.
18	East Bridgewater, Raynham, West Bridgewater,	• • •	1892 1892 1892	1,488,939 788,001 1,094,632	14 8 10	9 days. 4 days. 7 days.	350 00 150 00 250 00	583 33 250 00 416 67	May 20,	William H. Taylor, East Bridgewater.	Susan B. Dunphe, East Bridgewater.
19	Brewster*, Dennis, Yarmouth,	• • •	1903 1892 1892	524,365 1,216,610 1,814,660	4 17 9	$\frac{4}{16}$ $\frac{13}{16}$ $\frac{9}{16}$	86 54 407 75 253 71	144 24 679 58 426 18	July 5,	Henry H. Fisk, West Dennis.	William A. Schwab, Yarmouth.
20	Holland,† Wales, Warren,	• • •	1902 1893 1893	77,505 276,825 2,458,835	1 5 24	$\frac{1}{20}$ $\frac{3}{20}$ $\frac{1}{20}$	37 50 112 50 600 00	62 50 187 50 1,000 00	Aug. 1,	Frank E. Gleason, Warren.	Joseph G. Hastings, Warren.

* Added Oct. 17, 1903, by decree of the State Board of Education.

† Added in 1892.

Table of Superintendency Unions, Dec. 31, 1904 — Continued.

Number.	UNIONS.	When formed.	AT TIME OF FOR- MATION.		EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid to each town.	Superintend- ent's salary.	When super- intendent's year begins.	JOINT COMMITTEE.	
			Valuation.	Number of schools.	Service.	Salary.				Chairman.	Secretary.
21	Lunenburg, Winchendon, . . .	1893 1893	\$760,539 2,215,722	8 19	$\frac{1}{4}$ $\frac{2}{5}$	\$250 00 500 00	\$416 67 833 33	\$1,600 00	May 1,	Charles A. Goodrich, Lunenburg.	Mrs. Lola M. Henry, Winchendon.
22	East Longmeadow, () Longmeadow, . . . Hamden, . . . Wilbraham, . . .	1893 1893 1893 1893	1,292,068 415,300 760,147	11 6 10	$\frac{9}{32}$ $\frac{6}{32}$ $\frac{5}{32}$ $\frac{1}{32}$	210 94 140 37 117 19 281 25	351 57 234 37 195 31 468 75	1,550 00	July 1,	O. Louis Wolcott, East Longmeadow.	H. G. Webber, Wil- braham.
23	Dartmouth, Westport, . . .	1893 1893	2,366,225 1,366,750	20 18	$\frac{1}{2}$ $\frac{1}{2}$	375 00 375 00	625 00 625 00	1,500 00	Sept. 1,	Charles E. Soule, Dartmouth.	Edward L. Macon- ber, Westport.
24	Hanover, . . . Hanson, . . . Norwell, . . .	1894 1894 1894	1,180,726 629,890 885,537	8 8 10	$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$	250 00 250 00 250 00	416 67 416 66 416 67	1,700 00	May 1,	Clarence L. Howes, Hanover.	Mrs. Mary E. Curtis, Norwell.
25	Cheshire, . . . Dalton, . . .	1894 1894	701,890 2,303,315	8 18	$\frac{3}{10}$ $\frac{7}{10}$	225 00 525 00	375 00 875 00	1,500 00	April 14,	George Z. Dean, Cheshire.	William J. Simmons, Dalton.
26	Provincetown, . . . Truro * Wellfleet, . . .	1894 1902 1894	2,079,502 350,306 611,063	21 6 5	$\frac{19}{28}$ $\frac{2}{28}$ $\frac{5}{28}$	508 91 107 15 133 94	848 20 178 39 223 21	1,500 00	Sept. 7,	Andrew T. Williams, Provincetown.	Everett I. Nye, Well- fleet.
27	Norton, . . . Wrentham, . . .	1894 1894	778,616 1,447,747	9 16	$\frac{2}{8}$ $\frac{3}{8}$	300 00 450 00	500 00 750 00	1,500 00	May 1,	Elbridge J. Whitaker, Wrentham.	Arthur T. Sturdy, Norton.
28	Bellingham, Hopedale, . . . Mendon, . . .	1894 1894 1894	686,495 1,704,372 537,175	10 6 8	$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$	250 00 250 00 250 00	416 66 — 416 66	1,800 00	May 28,	Horace A. Brown, Bellingham.	Frank J. Dutcher, Hopedale.
29	Chatham,† Eastham, . . . Harwich, . . . Orleans, . . .	1903 1894 1894 1894	918,766 297,251 1,075,790 551,146	7 3 13 4	$\frac{12}{31}$ $\frac{2}{31}$ $\frac{13}{31}$ $\frac{4}{31}$	290 32 48 39 314 32 36 77	483 87 80 65 524 19 161 29	1,000 00	Oct. 1,	Darius M. Nickerson, Jr., West Harwich.	George S. Hall, Or- leans.

	Granby, South Hadley.	1885	1886	1887	8	1/4	187 50	312 50	1,500 00	April 1,	W. A. Taylor, Granby.	N. E. Preston, South Hadley.
30	Granby, South Hadley,	1885	1886	1887	21	3/4	187 50 562 50	312 50 937 50	1,500 00	April 1,	W. A. Taylor, Granby.	N. E. Preston, South Hadley.
31	Gill, Leyden, Northfield, Warwick,	1885	1886	1887	5	1/4	150 00 190 00 150 00 150 00	250 00 250 00 500 00 250 00	1,500 00	May 7,	L. R. Smith, East Northfield.	Nellie M. Wood, Northfield.
32	Bolton, Boyiston, Harvard, Shirley,	1885	1886	1887	7	9/28	160 71 183 32 241 07 214 29	267 86 223 21 401 79 357 14	1,530 00	July 1,	Warren H. Fairbank, Harvard.	George L. Wright, Boyiston (Centre).
33	Chilmark,* Cottage City, Edgartown, Gay Head,* Tisbury, West Tisbury,	1887	1885	1886	3	2/20	75 00 187 50 150 00 37 50 150 00 150 00	125 00 312 50 250 00 62 50 250 00 250 00	1,600 00	July 10,	William G. Manter, Tisbury.	Ulysses G. Mayhew, West Tisbury.
34	Georgetown, Groveland, Rowley,	1885	1886	1887	11 12 6	2/4 2/5 1/5	300 00 300 00 150 00	500 00 500 00 250 00	1,500 00	Sept. 1,	A. L. Wales, Grove- land.	Arthur W. Peabody, Rowley.
35	Carlisle, Chelmsford, Dunstable,	1886	1886	1887	5 17 3	3/20 15/20 7/20	112 50 562 50 75 00	187 50 937 50 125 00	1,500 00	Aug. 1,	Stewart Mackay, North Chelmsford.	James E. Kendall, Dunstable.
36	Holliston, Medway, Sherborn,	1886	1886	1887	13 16 5	7/5 2/5 1/5	300 00 300 00 150 00	500 00 500 00 250 00	1,550 00	Sept. 1,	J. B. Woolford, Hol- liston.	Charles M. Smith, Medway.
37	Aenshnet, Fairhaven, Mattapoisett,	1887	1887	1887	6 16 5	1/4 3/5 1/5	150 00 450 00 150 00	250 00 750 00 250 00	1,500 00	July 1,	Job. C. Tripp, Fair- haven.	Lemanuel Le B. Dexter, Mattapoisett.
38	Charlton, Florida, Hawley, Heath,* Monroe, Rowe,	1887	1887	1887	10 4 7 5 3 5	9/34 5/34 9/34 9/34 3/34 5/34	198 53 110 29 132 35 132 35 66 18 110 30	330 88 183 82 220 59 220 59 110 30 183 82	1,500 00	April 26,	Mrs. Mary E. Veber, Charlton.	Frank Burrington, Heath.

* Added in 1902.

† Added Oct. 17, 1903, by decree of the State Board of Education.

Added in 1901.

§ Added in 1897.

Table of Superintendency Unions, Dec. 31, 1904 — Continued.

Number.	UNIONS.	AT TIME OF FOR- MATION.		EACH TOWN'S SHARE OF SUPERINTENDENT'S —			State aid to each town.	Superintend- ent's salary.	When super- intendent's year begins.	JOINT COMMITTEE.	
		Valuation.	Number of schools.	Service.	Salary.	Chairman.				Secretary.	
39	Ashby, Townsend,	. . . 1897 . . . 1897	\$469,749 1,107,910	6 9	$\frac{2}{3}$ $\frac{2}{3}$	\$300 00 450 00	\$500 00 750 00	\$1,500 00	July 1,	Harlow R. Foster, Ashby.	G. A. Wilder, Towns- end.
40	Dover, Sudbury, Wayland,	. . . 1898 . . . 1898 . . . 1898	\$24,374 1,166,349 1,648,465	4 7 13	1 day. 1½ days. 2½ days.	150 00 225 00 375 00	250 00 375 00 625 00	1,500 00	Sept. 1,	Isaac Damon, Cochit- uate.	Mrs. Evora A. Wot- ton, Dover.
41	New Braintree, Sturbridge, West Brookfield,	. . . 1898 . . . 1898 . . . 1898	\$24,374 1,166,349 1,648,465	5 13 8	$\frac{3}{10}$ $\frac{4}{10}$ $\frac{3}{10}$	225 00 300 00 225 00	375 00 500 00 375 00	1,535 00	May 20,	George K. Tufts, New Braintree.	L. L. Beeman, West Brookfield.
42	Ayer, West Boylston,	. . . 1898 . . . 1898	1,450,329 789,255	11 5	$\frac{1}{2}$ $\frac{1}{2}$	375 00 375 00	625 00 625 00	1,600 00	July 1,	Albert W. Hinds, West Boylston.	George H. Brown, Ayer.
43	Acton, Littleton, Westford,	. . . 1898 . . . 1898 . . . 1898	1,538,050 878,325 1,266,454	9 7 16	$\frac{3}{10}$ $\frac{2}{10}$ $\frac{5}{10}$	225 00 150 00 375 00	375 00 250 00 625 00	1,600 00	Sept. 1,	Nathan A. Taylor, Littleton.	Charles J. Williams, Acton.
44	Foxborough, West Newbury,	. . . 1899 . . . 1899	2,018,088 855,621	15 11	$\frac{3}{5}$ $\frac{2}{5}$	450 00 300 00	750 00 500 00	1,500 00	July 1,	Josiah R. Gordon, West Newbury.	Addie J. Bemis, Fox- borough.
45	Medfield, Walpole,	. . . 1899 . . . 1899	1,311,568 2,453,071	8 15	$\frac{2}{5}$ $\frac{2}{5}$	300 00 450 00	500 00 750 00	1,800 00	July 1,	Mrs. Winifred T. McCarthy, Walpole.	George Washburn, Medfield.
46	Freetown, Seekonk,* Somerset, Swansea,	. . . 1900 . . . 1900 . . . 1902 . . . 1900	\$21,322 948,715 1,050,343 912,995	8 9 9 11	$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$	187 50 187 50 187 50 187 50	312 50 312 50 312 50 312 50	1,600 00	May 1,	Arthur C. Bradley, Seekonk.	Mrs. Viola N. Burns, Assonet.
47	Marion, Wareham,	. . . 1900 . . . 1900	1,052,270 2,348,013	6 22	$\frac{2}{5}$ $\frac{2}{5}$	300 00 450 00	500 00 750 00	1,500 00	June 1,	John Huxtable, Wareham.	A. C. Vose, Marion.
48	Holden, Oakham, Paxton, Rutland,	. . . 1900 . . . 1900 . . . 1900 . . . 1900	1,293,573 317,710 304,575 613,256	16 5 3 6	$\frac{5}{10}$ $\frac{2}{10}$ $\frac{7}{10}$ $\frac{2}{10}$	375 00 150 00 75 00 150 00	625 00 250 00 125 00 250 00	1,600 00	Aug. 1,	Jesse Allen, Oakham.	Addie M. Holden, Holden.

49	Ashfield, Gunnington, Goslen, Painfield,	1900 1900 1900 1900	532,307 287,195 133,513 158,081	10 6 2 3	$\frac{1}{24}$ $\frac{2}{24}$ $\frac{2}{24}$ $\frac{2}{24}$	312 50 312 50 156 25 156 25	520 83 312 50 156 25 260 42	1,500 00	Sept. 1,	J. E. Urquhart, Ashfield.	Frederick G. Howes, Ashfield.
50	Bedford, Burlington, Lincoln, Wilmington,	1900 1900 1900 1900	1,104,477 574,932 2,237,295 1,095,877	5 3 5 9	$\frac{5}{20}$ $\frac{3}{20}$ $\frac{5}{20}$ $\frac{7}{20}$	187 50 112 50 187 50 262 50	312 50 187 50 312 50 437 50	1,700 00	June 1,	Ernest H. Hosmer, Bedford.	Elihu G. Loomis, Bedford.
51	Lynnfield, Wakefield,	1900 1900	672,245 7,765,215	4 40	$\frac{1}{10}$ $\frac{9}{10}$	75 00 675 00	125 00 —	1,850 00	Aug. 1,	J. Winslow Perkins, Lynnfield.	Charles E. Montague, Wakefield.
52	Amherst, Pelham,	1901 1901	3,201,414 185,337	18 4	$\frac{4}{5}$ $\frac{1}{5}$	600 00 150 00	— 250 00	1,800 00	April 1,	John L. Brewer, Pelham.	Henry B. Richardson, Amherst.
53	Barnardston, Hadley, Hatfield,	1901 1901 1901	391,986 993,238 1,093,341	8 11 8	$\frac{8}{25}$ $\frac{11}{25}$ $\frac{8}{25}$	180 00 330 00 240 00	300 00 550 00 400 00	1,500 00	April 15,	Frank H. Smith, Hadley.	Samuel H. Field, Hatfield.
54	Blandford, Huntington, Montgomery, Russell,	1901 1901 1901 1901	446,340 523,892 140,598 490,804	8 9 5 6	$\frac{8}{31}$ $\frac{11}{31}$ $\frac{5}{31}$ $\frac{7}{31}$	133 56 266 12 120 96 169 36	322 60 443 54 201 60 282 26	1,500 00	July 1,	H. C. Parsons, Russell.	A. H. Nye, Blandford.
55	Avon, Hollbrook, Randolph,	1901 1901 1901	831,500 1,217,680 1,304,450	8 12 17	$\frac{4}{15}$ $\frac{5}{15}$ $\frac{9}{15}$	200 00 250 00 300 00	333 33 416 67 500 00	1,500 00	July 1,	Zenas A. French, Hollbrook.	John E. McDonald, Randolph.
56	Douglas, Uxbridge,	1901 1901	1,053,655 2,264,050	10 18	$\frac{2}{5}$ $\frac{3}{5}$	300 00 450 00	500 00 750 00	1,500 00	Sept. 1,	Francis P. Brady, Uxbridge.	Fred A. Place, East Douglas.
57	Erving, Leverett, Shutesbury, Wendell,	1901 1901 1901 1901	399,658 275,294 178,036 239,786	6 4 4 6	$\frac{9}{18}$ $\frac{4}{18}$ $\frac{3}{18}$ $\frac{5}{18}$	250 00 166 67 125 00 208 33	416 67 277 78 208 33 347 22	1,500 00	Aug. 1,	A. F. Field, Leverett.	Mrs. J. C. Richards, Erving.
58	Lee, Monterey, Otis, Tyringham,	1901 1901 1901 1901	1,760,771 226,845 216,292 221,717	12 5 5 3	$\frac{12}{25}$ $\frac{5}{25}$ $\frac{5}{25}$ $\frac{3}{25}$	252 00 105 00 105 00 63 00	492 00 205 00 205 00 123 00	1,600 00	Sept. 1,	Augustus R. Smith, Lee.	J. J. Hassett, Lee.

† Union No. 58 paid for ten months only.

* Added in 1902.

Table of Superintendency Unions, Dec. 31, 1904 — Continued.

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			Valuation.	Number of schools.	Service.	Salary.				Chairman.	Secretary.
59	Hinsdale, . Peru, . Savoy, . WindSOR, .	. . 1901 . 1901 . 1901	\$592,790 120,249 157,111 195,276	10 3 6 7	$\frac{3}{8}$ $\frac{1}{8}$ $\frac{2}{8}$ $\frac{2}{8}$	\$258 62 129 30 181 04 181 04	\$431 04 215 50 301 73 301 73	\$1,500 00	May	C. S. Galsusha, Wind- sor.	Thomas F. Barker, Hinsdale.
60	Reading, . Topsfield, .	. 1901 . 1901	4,412,574 859,435	21 6	$\frac{9}{10}$ $\frac{4}{10}$	450 00 300 00	— 500 00	1,500 00	May	Walter S. Parker, Reading. John M. Monroe, Pembroke.	A. T. Merrill, Tops- field. J. W. Cobb, Kingston.
61	Halifax, . Kingston, . Pembroke, Plympton, .	. 1901 . 1901 . 1901 . 1901	281,727 1,381,970 623,410 331,087	3 10 7 3	$\frac{2}{15}$ $\frac{9}{15}$ $\frac{5}{15}$ $\frac{2}{15}$	100 00 300 00 250 00 100 00	166 67 500 00 416 66 166 67	1,500 00	July	Thomas W. Tucker, Marblehead.	Stuart L. Little, New- bury.
62	Marblehead, Newbury, . Salisbury, .	. 1901 . 1901 . 1901	6,515,279 1,095,134 686,290	28 6 8	$\frac{3}{8}$ $\frac{1}{8}$ $\frac{1}{8}$	450 00 150 00 150 00	— 250 00 250 00	1,800 00	Sept.	George W. Tozer, Ipswich.	John H. Cogswell, Ipswich.
63	Essex, . Hamilton, . Ipswich, . Wenham, .	. 1902 . 1902 . 1902 . 1902	992,608 2,448,210 3,367,048 1,137,575	9 8 19 5	$\frac{1}{8}$ $\frac{1}{8}$ $\frac{2}{8}$ $\frac{1}{8}$	150 00 150 00 300 00 150 00	250 00 250 00 — 250 00	1,000 00	July	Daniel Shepardson, HancocK.	Channey H. Tracy, Lanesborough.
64	Clarksburg, Hancock, . Lanesborough, New Ashford, .	. 1902 . 1902 . 1902 . 1902	242,417 283,146 470,469 52,690	6 6 6 1	$\frac{9}{18}$ $\frac{9}{18}$ $\frac{9}{18}$ $\frac{1}{18}$	250 00 250 00 208 34 41 66	418 67 416 67 347 22 63 44	1,500 00	Sept.	Willard Putnam, New Salem.	Mrs. Nellie M. Brown, Dana.
65	Dana, . Greenwich, . New Salem, Prescott, .	. 1902 . 1902 . 1902 . 1902	314,532 241,755 292,850 160,504	5 3 10 5	$\frac{4}{21}$ $\frac{3}{21}$ $\frac{9}{21}$ $\frac{5}{21}$	142 86 107 14 321 43 178 57	238 10 178 56 535 72 297 62	1,500 00	July	Samuel Hodgkiss, Sutton.	Mrs. Julia F. Ban- croft, Auburn.
66	Auburn, . Sutton, .	. 1902 . 1902	650,780 1,215,789	9 17	$\frac{2}{8}$ $\frac{3}{8}$	270 00 480 00	450 00 800 00	1,500 00	July		

67	Carver, Lakeville, Rochester,	1902 1902 1902	956,630 373,372 509,950	10 6 6	$\frac{4}{10}$ $\frac{3}{10}$ $\frac{3}{10}$	300 00 225 00 225 00	500 00 375 00 375 00	1,500 00	May	1,	Seth C. C. Finney, East Carver.	Henry S. Griffith South Carver.
68	Millis, Norfolk, Westwood,	1902 1902 1902	734,245 615,926 1,566,204	6 5 6	$\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$	250 00 250 00 250 00	416 67 416 66 416 67	1,500 00	Sept.	1,	Calvin S. Locke, Westwood.	Edward W. Mann, Norfolk.
69	Mt. Washington, New Marlborough, Sheffield,	1902 1902 1902	92,872 537,363 880,675	2 11 10	$\frac{6}{50}$ $\frac{29}{50}$ $\frac{24}{50}$	75 00 285 00 390 00	125 00 475 00 650 00	1,500 00	July	1,	Herbert W. Weaver, Mt. Washington.	Charles W. Adams, Sheffield.
70	Chesterfield, Williamsburg, Worthington,	1902 1902 1902	285,511 863,822 309,496	6 15 7	$\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{4}$	187 50 375 00 187 50	312 50 625 00 312 50	1,500 00	Sept.	1,	William H. Baker, Chesterfield.	Emil H. Miller, Wil- liamsburg.
71	Alford, Egremont, Richmond, West Stockbridge,	1902 1902 1902 1902	164,887 447,782 322,544 407,777	3 4 7 8	$\frac{3}{22}$ $\frac{4}{22}$ $\frac{7}{22}$ $\frac{8}{22}$	102 27 136 36 238 64 272 73	170 45 227 27 397 73 454 55	1,500 00	July	1,	Lester T. Osborne, Alford.	C. H. Dorr, Richmond.
72	Berkley, Dighton, Rehoboth,	1902 1902 1902	440,315 820,631 760,640	7 12 13	$\frac{4}{50}$ $\frac{7}{50}$ $\frac{9}{50}$	150 00 262 50 337 50	250 00 437 50 562 50	1,500 00	July	1,	E. Ellsworth Lincoln, North Dighton.	Helen R. Strange, As- sonet.
73	Charlton, Leicester,	1902 1902	1,123,500 2,419,789	14 17	$\frac{1}{2}$ $\frac{1}{2}$	375 00 375 00	625 00 625 00	1,500 00	Sept.	1,	Jonas Bemis, Char- lton.	M. E. Hanley, Leices- ter.
74	Boxborough, Maynard, Stow,	1902 1902 1902	236,173 2,684,516 814,634	4 13 6	$\frac{2}{10}$ $\frac{5}{10}$ $\frac{3}{10}$	150 00 375 00 225 00	250 00 625 00 375 00	1,500 00	Sept.	1,	William H. Clark, Stow.	W. H. Furbush, Box- borough.
75	Conway, Deerfield, Sunderland, Whately,	1903 1903 1903 1903	686,885 1,422,599 455,886 418,139	12 13 4 4	6-7 days. 7-2 days. 3-9 days. 2-2 days.	251 21 270 63 145 63 82 53	418 69 451 05 242 71 137 55	1,500 00	June	1,	C. G. Trow, Sunder- land.	Henry S. Higgins, East Whately.
76	Agawam, Ludlow,	1903 1903	1,456,637 2,317,014	15 18	$\frac{15}{32}$ $\frac{17}{32}$	351 56 398 44	585 94 694 06	1,500 00	July	1,	Edward E. Chapman, Ludlow.	Frederick A. Worth- ington, Agawam.
77	Granville, Sandisfield, Southwick, Tolland,	1903 1903 1903 1903	373,116 313,255 500,650 157,030	8 8 10 4	30 per cent. 20 per cent. 30 per cent. 20 per cent.	225 00 150 00 225 00 150 00	375 00 250 00 375 00 250 00	1,500 00	July	1,	Mrs. Alice M. Car- penter, Granville.	Emma L. Stowe, Granville.

Table of Superintendency Unions, Dec. 31, 1904 — Concluded.

Number.	UNIONS.	When formed.	AT TIME OF FOR- MATION.		EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid to each town.	Superintend- ent's salary.	When super- intendents year begins.	JOINT COMMITTEE.	
			Valuation.	Number of schools.	Service.	Salary.				Chairman.	Secretary.
78	Dudley, . . . Webster, . . .	1903 1903	\$1,337,543 5,879,820	14 20	$\frac{1}{3}$ $\frac{2}{3}$	\$250 00 500 00	\$416 67 —	\$1,800 00	Aug. 1,	Frederick A. Brown, Webster.	Robert A. Dunning, Webster.
79	Merrimac, North Andover, . .	1903 1903	1,266,165 5,089,719	13 21	$\frac{1}{2}$ $\frac{1}{2}$	375 00 375 00	625 00 —	1,525 00	Sept. 1,	Fred S. Smith, North Andover.	C. A. Lancaster, Mer- rimac.
80	Billerica, . . . Pepperell, . . .	1904 1904	2,147,870 2,156,951	15 20	$\frac{1}{2}$ $\frac{1}{2}$	375 00 375 00	625 00 625 00	1,500 00	Sept. 1,	F. E. Lovejoy, Pep- perell.	Edward F. Carley, North Billerica.
81	Belchertown, . . . Enfield, . . .	1904 1904	852,985 737,397	20 7	$1\frac{2}{5}$ $\frac{7}{25}$	540 00 210 00	900 00 350 00	1,500 00	Sept. 1,	William B. Kimball, Enfield.	George H. B. Green, Belchertown.

NOTE. — Of the foregoing unions, those numbered 28, 33, 39, 52, 67 and 68 were authorized by special acts of the Legislature.

COST OF THE SCHOOLS.

The total expenditure for all school purposes was \$16,436,-667. Of this, 22 per cent. was for new school buildings and for alterations and repairs of old ones.

The cost of carrying on the public schools of all kinds was \$12,783,235.63. This was divided as follows : —

	Per Cent.
Wages of teachers,	72
Fuel and care of buildings,	14.8
Books and supplies,	5
Sundries,	2.7
Conveyance of children,	1.5
Administration,	4

These ratios vary greatly in different parts of the State. In Suffolk County the amount spent for the conveyance of children is too small to be considered, while in Barnstable and Franklin counties 8 per cent. of the whole cost is paid for conveyance. This reacts on the wages of teachers. In Suffolk County the wages are 78 per cent. of the whole cost for support, while in Franklin County they are only 60 per cent. The significance of this difference in estimating the efficiency of the schools is great.

The average rate of taxation for all school purposes is 4.95 mills on each dollar of valuation. The school tax is 30 per cent. of the entire municipal tax.

The Tax Rate as a Measure of School Efficiency. — The tax rate for school purposes in any community is a measure of the popular interest in schools and of the liberality of the people, but it is no measure of the efficiency of the school system. Because, for example, town A taxes itself at the rate of \$8.47 on a thousand for its schools while town B's school rates are only \$1.98, it does not follow that the schools of A are so much better than those of B. It does follow that in their poverty the people of A are making a greater sacrifice to maintain their schools than are the people of B. But B, because of its greater wealth, has \$51.39 to spend on each child in its schools while A has but \$14.97.

In carrying on a school more money will buy more commodious, healthful and attractive schoolrooms, more ample equip-

ment of books and teaching appliances, a more complete course of study, more skillful supervision, and, if bought freely in the open market, more scholarship, training and experience in the teaching staff. These are the elements that determine the efficiency of a school system. They may exist in large measure in some of the wealthy towns and cities without any sacrifice on the part of the people, while in scores of other towns the people are assuming heavy burdens in the effort to maintain the old traditions, but with all their effort can have but a short school year, poorly fitted and scantily equipped schoolhouses, a narrow curriculum, and teachers of little culture and less experience.

Were the wealthier towns which are now taxing themselves at a less than \$4 rate to move up into the \$6 and \$7 class, they might reach ideals of public education of which, with all their excellence they are now not even in sight. And they could do this without feeling the burden.

STATE AID TO HIGH SCHOOLS.

Towns containing five hundred families are required by law to maintain high schools. Other towns may maintain such schools and on certain conditions may receive State aid therefor to the extent of \$300 annually. These conditions are as follows:—

1. The school must be of the character described in the statutes.

[CHAPTER 42, REVISED LAWS.]

SECTION 2. Every city and every town containing, according to the latest census, state or national, five hundred families or householders, shall, and any other town may, maintain a high school, adequately equipped, which shall be kept by a principal and such assistants as may be needed, of competent ability and good morals, who shall give instruction in such subjects designated in the preceding section as the school committee consider expedient to be taught in the high school, and in such additional subjects as may be required for the general purpose of training and culture, as well as for the purpose of preparing pupils for admission to state normal schools, technical schools and colleges. One or more courses of study, at least four years in length, shall be maintained in each such high school and it shall be kept open for the benefit of all the inhabitants of the city or town for at least forty weeks, exclusive of vacations, in each year. A town may cause instruction to be given in a portion

only of the foregoing requirements if it makes adequate provision for instruction in the others in the high school of another city or town.

2. It must have two teachers.

3. It must be approved by the Board of Education.

The following 34 towns, having complied with the conditions, were entitled to receive the \$300 grant for the year 1903-04. Twenty-six towns received the grant in 1902-03.

Ashby,	Huntington,	Sharon,
Ashfield,	Kingston,	Sheffield,
Ashland,	Littleton,	Shelburne,
Avon,	Ludlow,	Shrewsbury,
Bernardston,	Lunenburg,	Southborough,
Carver,	Millis,	Sudbury,
Chester,	New Salem,	Tisbury,
Conway,	Northborough,	Wayland,
Edgartown,	Norwell,	Wellfleet,
Essex,	Orleans,	West Newbury,
Granby,	Rutland,	Wilmington.
Hadley,		

REIMBURSEMENT FOR HIGH SCHOOL TUITION.

Towns not required by law to maintain a high school are required to make provision for high school instruction in other towns. Under certain conditions they may be reimbursed by the State for the whole or a part of the cost of such instruction. The law is as follows : —

[CHAPTER 42, REVISED LAWS.]

SECTION 3. (*As amended by chapter 433, Acts of 1902.*) A town of less than five hundred families or householders in which a public high school or a public school of corresponding grade is not maintained shall pay for the tuition of any child who resides in said town and who, with the previous approval of the school committee of his town, attends the high school of another town or city. If such town neglects or refuses to pay for such tuition, it shall be liable therefor to the parent or guardian of a child who has been furnished with such tuition if the parent or guardian has paid for the same, and otherwise to the city or town furnishing the same, in an action of contract. If the school committee of a town in which a public high school or public school of corresponding grade is not maintained refuses, upon the completion by a pupil resident therein of the course of study provided by it, to approve his attendance in

the high school of some other city or town which he, in the opinion of the superintendent of schools of the town in which he is resident is qualified to enter, the town shall be liable in an action of contract for his tuition. A town whose valuation is less than seven hundred and fifty thousand dollars shall be entitled to receive from the treasury of the commonwealth all necessary amounts, and a town whose valuation exceeds seven hundred and fifty thousand dollars, but whose number of families is less than five hundred, shall be entitled to receive from the treasury of the commonwealth half of all necessary amounts which have actually been expended for high school tuition under the provisions of this section: *provided*, that such expenditure shall be certified under oath to the board of education by its school committee within thirty days after the date of such expenditure; but, if a town of less than five hundred families maintains a high school of its own of the character described in section two of this chapter and employs at least two teachers therein, it shall be entitled to receive annually from the treasury of the commonwealth toward the support of such high school the sum of three hundred dollars. No town the valuation of which averages a larger sum for each pupil in the average membership of its public schools than the corresponding average for the commonwealth shall receive money from the commonwealth under the provisions of this section; and no expenditure shall be made by the commonwealth on account of high school instruction under the provisions of this section unless the high school in which such instruction is furnished has been approved by the board of education.

Under the provisions of this law, 103 towns, sending 1,099 pupils, were entitled to be reimbursed wholly or in part by the State. The number of towns is 4 larger than last year and the number of pupils 103 larger. The expense of tuition was \$35,402.84, — an increase of \$3,514.57.

The total obligation of the State for high school aid for the year 1903-04 was \$45,602.34. The appropriation for the purpose was \$40,000. The balance, \$5,602.84, will need to be provided for in a deficiency bill by the Legislature of 1905.

It is interesting to know that of the 353 towns and cities in the State, all but 17 either maintain a high school or send some of their children to high schools in other towns. These 17 towns had in their elementary schools an average membership of but 1,677 pupils. Several of these towns are so small that they would only occasionally have pupils of high school age.

Table showing high school tuition reimbursements under section 3, chapter 42, Revised Laws, as amended by chapter 433, Acts of 1902.

[NOTE.—Towns, the names of which are italicized, were reimbursed by the State for *half* tuition only.]

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Acushnet, . . .	7	New Bedford, . . .	\$63 70	\$445 90
Alford, . . .	4	Great Barrington (Searles), .	54 00	126 00
Auburn, . . .	1	Worcester (Classical), . .	60 00	60 00
“ . . .	13	Worcester (English), . .	60 00	780 00
Becket, . . .	1	Springfield, . . .	75 00	75 00
“ . . .	1	Pittsfield, . . .	36 00	36 00
“ . . .	1	Westfield, . . .	50 00	50 00
“ . . .	1	Lee, . . .	50 00	50 00
“ . . .	4	Chester, . . .	40 00	160 00
<i>Bedford</i> , . . .	28	Concord, . . .	48 00	648 00
<i>Bellingham</i> , . . .	21	Franklin, . . .	30 00	295 12
“ . . .	9	Milford, . . .	38 00	132 10
Berkley, . . .	1	Fall River, . . .	50 00	50 00
“ . . .	8	Taunton, . . .	50 00	400 00
Berlin, . . .	13	Clinton, . . .	40 00	477 00
“ . . .	4	Northborough, . . .	30 00	91 50
“ . . .	2	Hudson, . . .	36 00	72 00
Blandford, . . .	3	Huntington, . . .	40 00	92 00
“ . . .	4	Westfield, . . .	50 00	200 00
Boxborough, . . .	15	Concord, . . .	48 00	592 00
“ . . .	1	Acton, . . .	30 00	30 00
Boylston, . . .	2	Worcester (English), . .	60 00	120 00
“ . . .	2	Clinton, . . .	40 00	46 00
Buckland, . . .	29	Shelburne Falls (Arms Academy).	36 00	948 00
“ . . .	3	Ashfield, . . .	30 00	70 00
Carlisle, . . .	6	Concord, . . .	48 00	224 00
Charlemont, . . .	5	North Adams, . . .	45 00	195 00
“ . . .	8	Shelburne Falls, . . .	36 00	252 00

High school tuition reimbursements, etc. — Continued.

TOWNS.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
<i>Charlton,</i> . . .	14	Southbridge, . . .	\$30 00	\$200 00
“ . . .	1	Worcester (South), . . .	60 00	30 00
“ . . .	4	Spencer, . . .	28 00	56 00
Cheshire, . . .	17	Adams, . . .	30 00	465 00
Clarksburg, . . .	11	North Adams, . . .	45 00	480 00
Colrain, . . .	22	Shelburne Falls (Arms Academy).	36 00	768 00
“ . . .	2	Greenfield, . . .	30 00	31 50
Dana, . . .	3	New Salem, . . .	30 00	65 00
“ . . .	1	Palmer, . . .	30 00	30 00
“ . . .	6	Athol, . . .	36 00	167 10
<i>Dighton,</i> . . .	15	Taunton, . . .	50 00	369 37
“ . . .	6	Fall River, . . .	50 00	125 00
<i>Dracut,</i> . . .	39	Lowell, . . .	60 00	1,030 00
Dunstable, . . .	1	Lowell, . . .	60 00	60 00
“ . . .	1	Groton, . . .	15 00	15 00
“ . . .	1	Pepperell, . . .	30 00	30 00
Eastham, . . .	4	Orleans, . . .	32 00	128 00
East Longmeadow, . . .	24	Springfield, . . .	75 00	1,725 00
Egremont, . . .	24	Great Barrington (Searles), . . .	54 00	1,116 00
“ . . .	1	Pittsfield, . . .	36 00	36 00
Enfield, . . .	6	Athol, . . .	36 00	192 00
Erving, . . .	7	Athol, . . .	36 00	226 40
“ . . .	2	Orange, . . .	25 00	50 00
“ . . .	10	Greenfield, . . .	30 00	276 00
Florida, . . .	3	North Adams, . . .	45 00	120 00
<i>Freetown,</i> . . .	2	New Bedford, . . .	63 70	63 70
“ . . .	3	Fall River, . . .	50 00	56 25
“ . . .	1	Middleborough, . . .	40 00	18 00
Gill, . . .	1	Bernardston (Powers Insti- tute).	21 00	7 00
“ . . .	9	Montague (Turner's Falls), . . .	30 00	270 00
Goshen, . . .	2	Williamsburg (Centre), . . .	26 00	52 00
“ . . .	1	Northampton, . . .	45 00	45 00

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Goshen, . . .	5	Ashfield, . . .	\$30 00	\$130 00
Granville, . . .	7	Westfield, . . .	50 00	305 00
“ . . .	1	Springfield, . . .	75 00	75 00
“ . . .	1	Amherst, . . .	35 00	35 00
Greenwich, . . .	9	Athol, . . .	36 00	285 10
“ . . .	1	Hardwick, . . .	40 00	40 00
Halifax, . . .	1	Bridgewater, . . .	35 00	25 00
“ . . .	1	Rockland, . . .	{ 30 00 36 00 }	{ 30 00 }
Hampden, . . .	1	Springfield, . . .	75 00	60 00
“ . . .	1	Westfield, . . .	50 00	25 00
Hanson, . . .	12	Whitman, . . .	30 00	340 00
Hawley, . . .	4	Charlemont, . . .	30 00	120 00
Heath, . . .	8	Shelburne Falls (Arms Academy).	36 00	240 00
Hubbardston, . . .	4	Gardner, . . .	30 00	110 00
“ . . .	3	Barre, . . .	40 00	96 00
Lakeville, . . .	16	Middleborough, . . .	40 00	604 00
Lanesborough, . . .	2	Pittsfield, . . .	36 00	45 00
“ . . .	1	Adams, . . .	30 00	20 00
Leverett, . . .	10	Montague (Centre), . . .	30 00	277 00
“ . . .	5	Amherst, . . .	35 00	175 00
Leyden, . . .	1	Greenfield, . . .	30 00	30 00
“ . . .	1	Bernardston (Powers Insti- tute).	21 00	21 00
Medfield, . . .	13	Walpole, . . .	33 00	196 35
“ . . .	14	Dedham, . . .	45 00	303 75
Middlefield, . . .	1	Chester, . . .	40 00	40 00
Middleton, . . .	10	Danvers, . . .	40 00	370 00
Monroe, . . .	1	Greenfield, . . .	30 00	30 00
Monterey, . . .	6	Great Barrington (Searles), . .	54 00	293 00
Montgomery, . . .	3	Huntington, . . .	40 00	89 00
Mount Washington, . .	2	Great Barrington (Searles), . .	54 00	108 00
New Braintree, . . .	1	Worcester (English), . . .	60 00	60 00
“ “ . . .	1	Warren, . . .	30 00	30 00

High school tuition reimbursements, etc. — Continued.

TOWNS.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
New Braintree, . .	2	Ware,	\$40 00	\$80 00
“ “ . .	3	North Brookfield, . .	40 00	120 00
Newbury,	5	Newburyport,	{ 12 00* } { 15 00* }	66 00
New Marlborough, .	8	Great Barrington (Searles), .	54 00	378 00
Norfolk,	2	Franklin,	30 00	57 75
“	3	Walpole,	33 00	99 00
Northfield,	1	Bernardston (Powers Insti- tute).	21 00	10 50
North Reading, . .	18	Reading,	40 00	680 00
“ “	5	Lowell,	60 00	280 00
Norton,	2	Attleborough,	50 00	50 00
“	4	Taunton,	50 00	100 00
“	1	Easton,	36 00	18 00
Oakham,	1	Worcester (Classical), . .	60 00	60 00
Otis,	1	Westfield,	50 00	50 00
Paxton,	3	Worcester (Classical), . .	60 00	120 00
“	1	Worcester (English), . .	60 00	60 00
Pelham,	6	Amherst,	35 00	178 00
“	1	Spencer,	28 00	16 80
Pembroke,	1	Rockland,	{ 30 00 } { 36 00 }	28 00
“	2	Kingston,	30 00	60 00
Peru,	2	Dalton,	10 00	20 00
Petersham,	2	Barre,	40 00	78 00
Phillipston,	5	Athol,	36 00	159 00
Plainfield,	2	Ashfield,	30 00	40 00
Plympton,	7	Kingston,	30 00	210 00
“	3	Middleborough,	40 00	120 00
Prescott,	3	Athol,	36 00	87 00
“	1	Amherst,	35 00	35 00
“	1	New Salem,	30 00	30 00
Raynham,	14	Taunton,	50 00	655 00
“	1	Middleborough,	40 00	31 00

* For foreign languages only.

High school tuition reimbursements, etc. — Continued.

TOWNS.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Raynham, . . .	2	Bridgewater, . . .	\$35 00	\$52 50
“ . . .	1	Easton, . . .	36 00	36 00
Rehoboth, . . .	11	Taunton, . . .	50 00	275 00
“ . . .	4	Attleborough, . . .	50 00	100 00
Richmond, . . .	8	Pittsfield, . . .	36 00	265 50
Rochester, . . .	5	Wareham, . . .	35 00	175 00
Rowe, . . .	3	North Adams, . . .	45 00	135 00
“ . . .	3	Charlemont, . . .	30 00	90 00
“ . . .	1	Bernardston (Powers Insti- tute), . . .	21 00	21 00
Rowley, . . .	15	Ipswich, . . .	40 00	562 00
“ . . .	5	Newburyport, . . .	48 00	216 00
Royalston, . . .	10	Athol, . . .	36 00	319 40
“ . . .	1	Templeton (Baldwinsville),	25 00	25 00
Russell, . . .	6	Huntington, . . .	40 00	190 00
Salisbury, . . .	13	Newburyport, . . .	{ 12 00* 15 00* }	161 00
“ . . .	2	Amesbury, . . .	{ 20 00 30 00 }	28 00
Savoy, . . .	1	Adams, . . .	30 00	45 00
Seekonk, . . .	4	Fall River, . . .	50 00	100 00
“ . . .	5	Attleborough, . . .	50 00	125 00
Shutesbury, . . .	2	New Salem, . . .	30 00	60 00
“ . . .	2	Montague (Centre), . . .	30 00	60 00
Somerset, . . .	47	Fall River, . . .	50 00	1,121 88
“ . . .	1	Taunton, . . .	50 00	16 87
Southampton, . . .	18	Easthampton, . . .	40 00	657 00
Southwick, . . .	13	Westfield, . . .	50 00	620 00
Sturbridge, . . .	21	Southbridge, . . .	30 00	310 00
Sunderland, . . .	16	Amherst, . . .	35 00	513 00
“ . . .	3	Greenfield, . . .	30 00	90 00
“ . . .	1	Montague (Centre), . . .	30 00	30 00
Swansea, . . .	27	Fall River, . . .	50 00	675 00
Tewksbury, . . .	34	Lowell, . . .	60 00	1,000 00

* For foreign languages only.

High school tuition reimbursements, etc. — Concluded.

TOWNS.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Tolland, . . .	1	Westfield, . . .	\$50 00	\$50 00
Truro, . . .	4	Wellfleet, . . .	30 00	110 00
“ . . .	2	Provincetown, . . .	38 00	61 00
Tyngsborough, . .	11	Lowell, . . .	60 00	620 00
Tyringham, . .	5	Lee, . . .	50 00	220 00
Warwick, . . .	1	Orange, . . .	25 00	25 00
Washington, . .	1	Pittsfield, . . .	36 00	36 00
“ . . .	1	Westfield, . . .	50 00	50 00
Wendell, . . .	2	New Salem, . . .	30 00	60 00
“ . . .	2	Orange, . . .	25 00	35 00
West Bridgewater, .	1	Brockton, . . .	60 00	30 00
“ “ . .	2	Easton, . . .	36 00	36 00
West Brookfield, .	23	Warren, . . .	25 00	280 00
“ “ . .	2	Ware, . . .	40 00	20 00
“ “ . .	1	Worcester (English), . .	60 00	30 00
Westhampton, . .	9	Northampton, . . .	45 00	405 00
West Stockbridge, .	15	Great Barrington (Searles),	54 00	693 00
“ “ . .	4	Pittsfield, . . .	36 00	144 00
West Tisbury, . .	1	Tisbury (Vineyard Haven),	37 00	37 00
Whately, . . .	7	Northampton, . . .	45 00	315 00
“ . . .	7	Greenfield, . . .	30 00	162 00
Wilbraham, . . .	4	Palmer, . . .	30 00	52 50
Williamsburg, . .	6	Northampton, . . .	45 00	135 00
Windsor, . . .	1	Adams, . . .	30 00	30 00
“ . . .	1	Northampton, . . .	45 00	45 00
“ . . .	1	Ware, . . .	40 00	40 00
Totals (103 towns),	1,099	70 schools, . . .	\$38 03	\$35,402 84

DISTRIBUTION OF THE INCOME OF THE SCHOOL FUND.

In accordance with the provisions of chapter 456, Acts of 1903, \$183,694.39 was distributed among the towns on Jan. 25, 1904.

How wide this distribution is may be seen from the following table. The cities are classed as towns in the total.

Barnstable County, . . .	13 of	15 towns share in the distribution.
Berkshire County, . . .	24 of	32 towns share in the distribution.
Bristol County, . . .	13 of	20 towns share in the distribution.
Dukes County, . . .	7 of	7 towns share in the distribution.
Essex County, . . .	13 of	34 towns share in the distribution.
Franklin County, . . .	23 of	26 towns share in the distribution.
Hampden County, . . .	17 of	23 towns share in the distribution.
Hampshire County, . . .	18 of	23 towns share in the distribution.
Middlesex County, . . .	27 of	54 towns share in the distribution.
Nantucket County, . . .	0 of	1 towns share in the distribution.
Norfolk County, . . .	13 of	28 towns share in the distribution.
Plymouth County, . . .	17 of	27 towns share in the distribution.
Suffolk County, . . .	0 of	4 towns share in the distribution.
Worcester County, . . .	43 of	59 towns share in the distribution.

Total, 228 of 353 towns share in the distribution.

To what extent the welfare of the schools is dependent upon the aid which the State affords is shown by the following list of towns, in which the school fund money exceeds the amount raised by the town by local taxation :—

TOWNS.	Raised by local taxation.	Received from the income of the school fund.
Mashpee,	\$887 15	\$972 39
Alford,	540 00	814 92
Florida,	863 53	952 92
Monterey,	882 78	1,129 86
Mount Washington,	228 00	814 93
New Ashford,	276 40	575 00
Peru,	527 07	972 39
Savoy,	928 83	1,047 39
Chilmark,	284 52	814 92
Gay Head,	121 17	972 39
Gosnold,	200 00	500 00
West Tisbury,	793 26	1,129 86

TOWNS.	Raised by local taxation.	Received from the income of the school fund.
Leyden,	\$944 00	\$952 91
Monroe,	506 00	889 93
Rowe,	950 05	972 39
Shutesbury,	795 49	877 91
Holland,	253 50	500 00
Montgomery,	465 26	972 39
Tolland,	731 38	889 93
Goshen,	303 57	575 00
Middlefield,	713 28	972 39
Pelham,	497 59	575 00
Plainfield,	656 68	814 93
Boxborough,	681 93	972 40

[CHAPTER 456, ACTS OF 1903.]

AN ACT RELATIVE TO THE MASSACHUSETTS SCHOOL FUND.

SECTION 1. The annual income of the Massachusetts School Fund shall, without specific appropriation, be apportioned and distributed for the support of the public schools in the following manner:—Every town which complies with all laws relative to the distribution of said income and whose valuation of real and personal property, as shown by the last preceding assessors' valuation thereof, does not exceed one half million dollars, shall annually receive five hundred dollars; but if its rate of taxation for any year shall be eighteen dollars or more on a thousand dollars it shall receive seventy-five dollars additional; every such town whose valuation is more than one half million dollars and does not exceed one million dollars shall receive three hundred dollars; and every such town whose valuation is more than one million dollars and does not exceed two million dollars shall receive one hundred and fifty dollars; and every town whose valuation is more than two million dollars and does not exceed two and one half million dollars shall receive seventy-five dollars. The remainder of said income shall be distributed to towns whose valuation does not exceed two and one half million dollars, and whose annual tax for the support of public schools is

not less than one sixth of their whole tax for the year, as follows : — Every town whose school tax is not less than one third of its whole tax shall receive a proportion of said remainder expressed by one third ; every town whose school tax is not less than one fourth of its whole tax shall receive a proportion expressed by one fourth ; every town whose school tax is not less than one fifth of its whole tax shall receive a proportion expressed by one fifth ; and every town whose school tax is not less than one sixth of its whole tax shall receive a proportion expressed by one sixth. All money appropriated for other educational purposes, unless otherwise provided for, shall be paid from the treasury of the Commonwealth.

SECTION 2. The income of said fund which has accrued on the thirty-first day of December in each year shall be apportioned by the commissioners of the Massachusetts School Fund in the manner provided for by section one of this act, and shall be paid to the several towns on the twenty-fifth day of January thereafter.

SECTION 3. The sums received by any town under the provisions of this act shall be held by the town treasurer and shall be expended only for expenses in maintenance of the public schools authorized by the school committee, in accordance with existing laws ; and it shall be the duty of the treasurer to keep a separate account of all sums so received and expended, and the school committee shall make an annual report to the state board of education, in such form as may be prescribed by said board, of the amount received during each year, the amount expended from such receipts, the purpose for which such expenditures have been made, in detail, and the balance, if any, remaining unexpended. And whenever it appears that, in the opinion of the state board of education, the sums paid to any town have not been used in whole or in part in accordance with the provisions of this section, or that they have not been held and accounted for separately, or that the report thereof herein required has not been made, the commissioners of the school fund are hereby authorized to withhold, as they may deem advisable, the whole or any part of the future allowances otherwise falling to such town under the provisions of this act.

SECTION 4. Sections four and five of chapter forty-one and section thirty of chapter forty-two of the Revised Laws, and so much of section three of chapter thirty-nine and of sections two and six of chapter forty of the Revised Laws as provides for paying certain expenses out of the income of the Massachusetts School Fund, and all other acts and parts of acts inconsistent with this act, are hereby repealed.

SECTION 5. This act shall take effect upon its passage.

[REVISED LAWS, CHAPTER 41, SECTION 6.]

MASSACHUSETTS SCHOOL FUND.

No such apportionment and distribution shall be made to a town which has not maintained a school as required by section one of chapter forty-two; or which, if containing the number of families or householders required by section two of said chapter, has not maintained, for at least thirty-six weeks during the year, exclusive of vacations, a high school such as is mentioned therein; or which has not made the returns required by sections five and six of chapter forty-three, and complied with the laws relative to truancy; or which has not raised by taxation for the support of public schools which are authorized or required by law, including the wages of teachers, the transportation of school children, fuel, the care of fires, school rooms and school premises, supervision, text-books and supplies, and school sundries or incidentals during the school year embraced in the last annual returns, an amount not less than three dollars for each person between the ages of five and fifteen years resident in such town on the first day of September of said school year.

[CHAPTER 107, ACTS OF 1904.]

AN ACT RELATIVE TO THE DISTRIBUTION AND USE OF THE INCOME
OF THE SCHOOL FUND.

SECTION 1. No town shall receive any part of the income of the Massachusetts School Fund unless it shall have complied, to the satisfaction of the board of education, with all laws relating to the public schools.

SECTION 2. No part of the income of the Massachusetts School Fund shall be used for payment of the compensation or expenses of members of school committees.

The Board of Education has sent the following circular to the school committees of all towns receiving money from the school fund:—

County of

Town of

COMMONWEALTH OF MASSACHUSETTS.

STATE BOARD OF EDUCATION.

Inquiries to be answered concerning the use of the money received from the income of the Massachusetts School Fund made by the school committee of the town of _____ for the school year 1904.

1. *Expenditures from Town Appropriation for Support of Schools.*

- | | |
|--|--------|
| 1. Town appropriation, 1901, | 100.00 |
| Expenditures from the same, | 100.00 |
| 2. Town appropriation, 1902, | 100.00 |
| Expenditures from the same, | 100.00 |
| 3. Town appropriation, 1903, | 100.00 |
| Expenditures from the same, | 100.00 |

2. Use of Massachusetts School Fund Money in 1904.

- | | | | | |
|-------------------------------------|---|---|---|---|
| 1. Total received from the State, | . | . | . | . |
| 2. Total expenditure from the same, | . | . | . | . |
| 3. Unexpended balance, | . | . | . | . |

3. Detailed Expenditure.

4. Expended for wages of teachers,
5. Expended for transportation of school children,
6. Expended for fuel and the care of schoolhouses,
7. Expended for books and supplies,
8. Expended for other purposes (specify each),

9. Total of 4, 5, 6, 7 and 8,

Certificate of the School Committee.

We, the chairman and the secretary of the school committee of _____ hereby certify that the above is a true statement of the receipts and expenditures from the Massachusetts School Fund for the year 1904.

Chairman.

Secretary.

ss.

On this _____ day of _____, 190 _____,
personally appeared the above-named chairman and secretary of the
school committee of _____ and made oath that the
above certificate by them subscribed is true to the best of their
knowledge and belief.

Before me,

Justice of the Peace.

NOTE. — This blank form, duly filled and signed, should be returned to the Secretary of the State Board of Education on or before Jan. 1, 1905.

The law authorizes the expenditure of the school fund money for a variety of purposes included under the 'general phrase "support of schools." It would simplify the bookkeeping of the town, and reduce the labor of making the annual report to the Board of Education, if the entire amount were appropriated by the school committee for wages of teachers. This would not necessarily increase the amount spent for the purpose, except in seven towns; Mt. Washington, New Ashford, Chilmark, Gay Head, Gosnold, Holland and Tolland, where the expenditure for the wages of teachers is less than the amount received from the school fund. Possibly in some of these towns some increase of wages might be made.

In some towns the custom has grown up, either in consequence of a direct vote of the town or without such vote, for the selectmen to claim the right to review the orders drawn by the school committee upon the town treasurer for expenditures in support of schools. Cases are frequently reported to the office of the Board of Education of friction between town officers in regard to this matter and delay in paying school bills.

Whatever the vote of the town may be, the selectmen have no power to refuse approval of bills contracted by the school committee in the performance of their duties under the law, which gives them the general charge and superintendence of all the public schools, nor has the treasurer any authority to refuse to honor the orders of the school committee. The school committee may transmit their orders to the treasurer through the selectmen, but as a matter of courtesy and not of obligation. This does not apply to the money received by the town treasurer from the school fund income, which is a separate account, wholly outside of the town appropriation.

AGENTS OF THE BOARD.

The relation of the agents of the Board of Education to the schools of the State and to the Board itself is scarcely understood, although the office has been in existence many years. This is partly due to the fact that their work, like that of the secretary of the Board, and, indeed, of the Board itself, is general and not specific.

The statute of 1857, by which the office of agent was estab-

lished, provided that the agents “should visit the cities and towns for the purpose of inquiring into the condition of the schools, of conferring with teachers and committees, of lecturing upon subjects connected with education, and, in general, of giving and receiving information upon such subjects in the same manner as the secretary.”

The purposes for which the agents were to be appointed were the same for which the Board itself was created, — to gather and diffuse information in order to raise, maintain and guide the public sentiment of the State in matters relating to public education in all its phases. Because the members of the Board could not themselves do this work, and because the secretary could not cover the entire State and could not personally meet all the demands which the growing school interests were making, men were needed suitably qualified and in sufficient numbers to carry out the purpose of the State. They were to be eyes and ears for the Board and they were to voice the sentiment of the Board. As the Board was to do its work with little authority, but through its influence upon the public, upon school officials and upon teachers, the success of the Board itself came to be conditioned largely upon the efficiency of its agents, upon the breadth and accuracy of their observation, upon the wisdom of their counsel, and upon the weight of their influence with the people in charge of the schools.

The Board as a board has no means of exerting influence, except through the agents. The results of their work have amply justified their appointment and more than met all reasonable expectations. The steady uplift of public sentiment in the communities, which has brought better school-houses, better equipment and better paid teachers, longer terms of schools, better school attendance, and, in recent years, professional supervision for all schools, — this uplift has been due in a large measure to the work of the agents in doing just the things mentioned in the law, visiting the towns and cities for inquiry, conferring with school committees and teachers, and lecturing upon educational themes at public meetings of teachers, superintendents and citizens.

The necessity for work of this character is as urgent now as it has ever been, and it will continue as long as the Board itself

continues with its present relations to the school affairs of the State. As schools multiply and become more complex, as communities are moved to enter upon new lines of educational effort, as the differences between poor and rich towns become accentuated, it becomes more and more necessary for the Board to use the agents to gather and diffuse information. It is through them alone that the Board can study educational movements in the State and make its influence felt in fostering and directing these movements.

Some of the reports of the agents have been of the widest usefulness, not only within the State itself but outside. The reports of Mr. Walton on truancy, of Mr. Prince on courses of studies and on school hygiene, of Mr. MacDonald on high schools and of Mr. Fletcher on the consolidation of schools and the conveyance of children, and the reports of Mr. Bailey upon drawing have been called for from all parts of the country. Within a few months the report on the consolidation of schools has been sent to Ireland, to Australia and to South Africa.

The general appointment of superintendents throughout the State has increased rather than diminished the demands upon the agents. To the conferences with school committees of former days must now be added conferences with superintendents.

Many of these officers are new to their duties and need assistance. They are trying in various ways to improve the school conditions in their fields. They desire and need the advice of the agents, who know the fields, as to the wisdom of their measures and as to the probable success in the particular fields. Often the services of the agents are needed to remove misunderstandings between committees and superintendents.

Under the law of 1904, requiring superintendents in unions to have the approval of the Board of Education, additional work devolves upon the agents; for it is upon their judgment, based upon inspection of the work, that the Board must rely in deciding questions of approval.

Since the passage of the law, the three agents, Mr. Prince, Mr. MacDonald and Mr. Fletcher, have spent practically all of their time in inspection of the work of the union superintendents, in order that the Board might be ready to act upon

their cases when the law goes into effect in January, 1905. In doing this they have been forced to leave undone other work which was important. The Board has now but three general agents, Mr. Sargent's work being specially confined to industrial drawing. Ten years ago there were five agents engaged upon general work.

The inspection of high schools, which forms the basis of approval of the Board now required by law, should have the entire time of one man. The inspection of the work of union superintendents, now between seventy and eighty in number, should have the entire time of one man. The truant schools and the schools for defectives, to which the State makes large appropriations, should be inspected by a representative of the Board. The institutes need much of the time of the agents. The normal schools should be under the personal supervision of the secretary.

This increase of special duties leaves but little time for the general work of visitation and conference which have been so largely influential in the past.

TEACHERS' INSTITUTES.

The number of institutes held during the year has been smaller than usual, owing to the demands upon the time of the agents of the Board for other work.

Two special institutes have been held, the music institute, which is described elsewhere in this report, and an institute for the supervisors of drawing, held under the direction of Mr. Sargent and with the co-operation of the principal and alumni of the State Normal Art School. The drawing institute is described in Mr. Sargent's special report, found in the appendix.

The institute record for the year is as follows : —

WHERE HELD.	Date.	Number of towns represented.	Number of members.	Number of exercises.	By whom conducted.
Bernardston, . . .	May 3,	8	37	6	G. T. Fletcher.
Buckland, . . .	May 5,	5	51	6	G. T. Fletcher.
Charlemont, . . .	May 5,	6	36	6	G. T. Fletcher.
Chester, . . .	May 4,	8	61	6	G. T. Fletcher.
Dalton, . . .	Sept. 24,	13	77	8	G. T. Fletcher.
Dighton, . . .	Nov. 4,	7	76	10	J. T. Prince.
Leominster, . . .	April 22,	8	247	10	J. W. MacDonald.
Marlborough, . . .	April 29,	8	133	12	J. W. MacDonald.
Tisbury, (Vineyard Haven).	Sept. 30,	5	28	10	J. T. Prince.
Uxbridge, . . .	April 28,	6	134	13	J. W. MacDonald.
West Brookfield, . . .	Oct. 5,	8	153	13	J. W. MacDonald.
West Stockbridge, . . .	May 13,	4	22	6	G. T. Fletcher.
Winchendon, . . .	Oct. 14,	9	158	12	J. W. MacDonald.
Totals, . . .	. . .	95	1,213	118	

EVENING SCHOOLS.

The returns show an increase over last year of 2 towns supporting evening schools, 113 classes, 169 teachers, 4,595 pupils, 1,364 in the average attendance, and \$33,777.69 in cost of support.

There is a slow but steady increase in all these items from year to year. The average number of [nights on which the schools are kept is 48, the same as last year. In this feature there are wide variations among the towns and cities. Worcester provided an average of 110 sessions for its evening schools; Boston, 99; Clinton, 94; while Gloucester and Easthampton provided but 30, Milford but 24, and Adams but 18. Through the efforts of the superintendent and school committee of Adams, the appropriation for evening schools has been doubled for the year 1904-05.

The chief purpose of evening elementary schools is to provide instruction in English to non-English speaking persons and to aid other persons whose opportunities in childhood have been limited to acquire the rudiments of common school learning. If conditions exist in any community making such schools necessary, it is difficult to see how the need can be met in any satisfactory way by a school of eighteen or even of thirty evenings.

KINDERGARTENS.

Table showing the number and location of public kindergartens kept during the year 1903-04, and cost of their maintenance.

CITIES AND TOWNS.	Number of public kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.	Cost.
Attleborough, .	2	3	115	4	\$2,049 45
Andover, . .	3	4	121	3½	1,918 60
Boston, . . .	89	170	6,216	3½	120,918 01
Braintree, . .	5	5	166	4	2,100 00
Bridgewater, . .	1	2	40	4	1,761 47
Brookline, . .	11	19	499	3½	14,580 29
Cambridge, . .	15	29	1,010	3½	17,797 45
Chicopee, . . .	2	2	99	3	—
Dedham, . . .	3	6	122	3½	2,073 91
Easton, . . .	2	2	63	3	625 00
Fall River, . .	3	6	226	3	2,751 12
Greenfield, . .	2	2	66	3½	890 00
Haverhill, . .	2	4	125	3½	1,500 00
Holyoke, . . .	7	14	417	4½	6,590 04
Hopedale, . .	1	2	32	4	854 50
Lee,	1	2	17	3½	977 96
Lowell, . . .	13	25	761	3½	12,610 30
Marblehead, . .	2	4	81	4	1,120 00
Medford, . . .	7	6	318	5	3,250 00
Milton, . . .	4	7	153	3½	4,792 00
New Bedford, . .	3	6	173	4	6,300 00
Newton, . . .	15	32	672	4	18,842 20
North Adams, . .	5	10	291	4	3,700 00
Northampton, . .	4	8	166	3½	—

Number and location of public kindergartens, etc. — Concluded.

CITIES AND TOWNS.	Number of public kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.	Cost.
Pittsfield, . . .	2	4	122	4	\$1,799 73
Salem, . . .	5	10	279	4	4,394 07
Somerville, . . .	4	8	242	4	4,026 00
Springfield, . . .	12	27	1,018	4	13,894 95
Sutton, . . .	1	1	81	4	328 00
Watertown, . . .	1	2	48	3½	750 00
Wellesley, . . .	1	2	28	4	600 00
Westfield, . . .	5	9	142	4½	-
West Springfield, . . .	3	3	166	4½	1,603 60
Winchester, . . .	3	6	142	4	2,249 99
Worcester, . . .	13	27	876	4	16,946 39
Totals(35 towns),	252	469	15,093	3 to 5 yrs.	\$274,595 03

VACATION SCHOOLS.

The following vacation schools are reported as supported at public expense during the summer of 1903 :—

CITIES AND TOWNS.	NUMBER OF —			Average length of schooling.		Total expenditure for support of schools.
	Schools.	Teachers.	Pupils.			
Athol, . . .	1	4	96	Mos. Days.		
Boston, . . .	8	161	10,487	- 15		\$9 00
Brookline, . . .	2	10	559	1 5		10,277 95
Hyde Park, . . .	3	3	331	1 10		1,199 46
Somerville, . . .	1	7	488	- 30		407 73
Winchendon, . . .	1	2	32	1 5		540 00
	16	187	11,993	1 -		52 00
				- -		\$12,486 14

MUSIC IN SCHOOLS.

Sixty years ago in his eighth report to the Board of Education, Horace Mann discussed the subject of vocal music in schools. Mr. Mann had visited Europe two years before and

had been impressed by the evidence which he saw everywhere among the people of a knowledge of music and a love for it. He contrasted it with the ignorance and indifference which characterized his own people. Speaking of Prussia, he wrote : "That whole country, indeed, is vocal with music. It adds zest to all social amusements. It saves the people from boisterous and riotous passions. Pervading all classes, it softens and refines the national character. It is the narcotic of the student after his severe mental exertion, and it cheers on the laborer sweating at his toil."

He attributes this universal love of music to the universal practice of music in the German schools. He says: "In that kingdom [Prussia] no person could be approved as a teacher, — no individual, indeed, would ever think of presenting himself as a candidate for teaching, even in the obscurest school and at the lowest salary, who was not master both of the theory and practice of vocal music, and also a performer upon one or more instruments."

With characteristic thoroughness of treatment, full of argument and felicity of expression, he urges the more general introduction of music into the schools.

He argues that vocal music promotes health, that it furnishes means of intellectual exercise, and that its social and moral influences are transcendent.

One sentence seems appropriate to the current discussions of the place of music in the high schools. "The intellect can be exercised on the relations of tones as well as on the numbers, quantities and magnitudes of arithmetic, algebra or geometry, and while music furnishes problems sufficient to task the profoundest mathematical genius that has ever existed, it also exhibits scientific relations so simple as to be within the school-boy's comprehension."

On his return from Europe, Mr. Mann instituted some inquiries into the extent to which music had been introduced into the schools of Massachusetts. He reports: "There are now about five hundred schools in the State where vocal music is practised. Half a dozen years ago, the number was probably less than one hundred."

The answers to his inquiries as they came from the towns

are interesting. In Boston music had been taught in all the schools for six years. In a few other towns, music was reported as being in most of the schools. But the returns are monotonous in their showing that music in a school was an exception and not the rule. They say, "Vocal music in four schools," "in two schools," "in three schools." Scores of towns say, "in one school." One says, "Vocal music practised where the teachers are competent;" others, "Vocal music occasionally in two schools." "Vocal music in two winter schools," "Vocal music more or less in all the summer schools," "Vocal music in a few female schools."

The use by Mr. Mann of the word "practised" in connection with music is significant. His inquiry and the answers to it all speak of music as being practised.

The report from Boston is illuminating as to the status of music in the public schools of the time. "Vocal music is regularly taught by an accomplished instructor in all the grammar and writing schools, but not in the Latin or English high school. It is practised more or less in the primary schools."

The situation in the State may be summed up by saying that there was more or less singing occasionally in an individual school here and there, when a teacher was in charge who could sing.

Systematic instruction in singing was confined to the grammar schools of Boston and probably a few other towns.

Nowhere in public school work have the passing years wrought greater changes than in the realm of music. It would be safe to say that now music is universally practised in the schools of all grades. More than this, were an official inquiry to be made this year, the question would not be, "Is music practised?" but "Is music taught?" And the replies would show that music is systematically taught in all the graded schools and in a large proportion of the ungraded schools. Nor is the teaching confined to grammar schools. Could Mr. Mann visit a primary school to-day he would find the practice of music, as in the rote singing, exerting all the brightening and softening influences which appealed to him so strongly in the Prussian schools; and he would find also that,

even in the primary schools, music is being taught so scientifically as to sustain his contention as to its value as an intellectual exercise.

In 1844, Boston had a "regular instructor" in music. Such a person had a unique position in connection with the public schools. In 1902, Secretary Hill reported that there were employed in the State 163 supervisors or directors of music, that they worked in 203 towns and cities and reached by their instruction 85 per cent. of the school children of the State.

This great change, involving considerable expense, is indicative of a profound change in public sentiment, for it has come about without the pressure of a compulsory law. Music has never been included among the required studies. There could be no finer illustration of the successful working of the Massachusetts policy of which I have spoken in an earlier part of this report.

The people have left the old required studies to make their way as best they could in the hands of the regular teachers, and some of them have not fared very well. But music the people seem to have taken to their heart, and have liberally provided for it in the employment of special instructors.

As a result, music is probably taught at least as well as any of the required branches. It can no longer be said with truth, as Mr. Mann said in the report from which I have quoted, "We are an un-musical, not to say an anti-musical, people."

MUSIC IN HIGH SCHOOLS.

The introduction of courses in the more advanced study of musical theory and history into the curriculum of several colleges has led to a discussion of the place of music in the high schools, and a course of study for high schools preparatory to these college courses has been worked out and recommended by a Conference on Music in Public Education, which convened in Boston in 1902 at the call of the New England Education League. In view of this fact the Board of Education, through its secretary, has made some inquiry into the status of music in the high schools of the State. A copy of the following questions was sent to the principal of each high school: —

IN THE SERVICE OF THE COMMONWEALTH.

STATE BOARD OF EDUCATION, BOSTON, June 14, 1904.

*Principal of the High School,**Mass.*

DEAR SIR : — The Board of Education desires to ascertain, with as much completeness as possible, the amount and character of the instruction in music in the high schools of the State. In furtherance of this end, will you kindly reply to the following questions and return the blank to this office as soon as convenient.

Very truly yours,

GEORGE H. MARTIN,

Secretary.

Is music taught in your school?

By special teacher?

How much time is allowed for it?

(Answer in recitation hours per week, and give number of years.)

How much weight is given to it, if any, toward earning a diploma?

Does the work include individual training in musical theory (examinable work), or is it chiefly chorus singing?

Do you do special chorus work for public presentation?

Is the work a consecutive development of the work in the grade below the high school?

Do you give credit for work done in music outside of the school?

Would it be practicable or wise to do so?

Other remarks,

(Signature)

Principal.

Name of school :

Replies were received from most of the schools. From these replies the following facts appeared : —

1. Music is taught in all but a few very small schools.

2. In practically all schools it is taught by a special teacher. Sometimes, in addition to the weekly or semi-weekly lessons by the special teacher, short lessons are given daily by one of the regular teachers, frequently by the principal.

3. The time given to music is nearly uniform throughout the State, being one recitation period or hour weekly through the four years. In a few schools two periods are given.

4. In a large majority of schools, work in music is not counted in making up diploma credits. In some schools, attendance upon the music exercise is required of all pupils, and they are credited with such attendance through the four years.

In schools with elective courses the diploma is granted upon the satisfactory completion of a prescribed number of courses, frequently fifteen or sixteen yearly, or sixty or sixty-four in all. Each course is credited with one point. In these schools music usually is allowed one point annually.

5. In nearly all cases, enough to warrant a general statement for the State, the high school work in music consists solely of chorus singing. But few schools report any work in musical theory or individual work in voice training, and in scarcely any schools are there any individual tests such as are given in all other studies. This is probably the reason why the work is not credited toward a diploma.

Only one school, the English high school in Cambridge, reports work in harmony, counterpoint and melodic construction. This is an optional course in the third and fourth years, and work is not counted for the diploma, while the chorus singing, being required of all students for four years, is counted.

One school, the Springfield high school, reports two special teachers, — a singing teacher and a teacher of musical theory. In this school two periods a week for one year are given to a course in harmony, and two periods a week for two years to music analysis. By this is meant training in appreciation and in how to listen to music. These courses are elective. This school offers the most complete opportunity now given in the State, and might well serve as a standard for all schools, at least, in large cities.

Taking the State at large, the aim of the work in music in the high schools is well described in one report: "For us music introduces a desirable variety into school life, and it is also convenient on occasions, particularly at graduations, to have a chorus to depend upon for suitable music."

6. In all the schools the work culminates in the preparation and rendering of pieces at the graduation exercises. A few schools do more than this, preparing for public presentation

more pretentious productions, cantatas, etc., and occasionally an oratorio.

Some schools furnish a glee club from among the students and use it for public occasions.

7. While a majority of principals say that the work in the high school is a development of the work in the grades below, it is evident that in many cases this answer is only an assumption. Many principals say, "I suppose so," or frankly, "I do not know." I have the impression that in many schools the work is left wholly to the special teacher, the principal, either through ignorance of music or lack of interest, contenting himself with securing the attendance of the pupils upon the exercise and maintaining proper discipline at the time.

In one school the principal reports that the pupils seem to have less ability to read music at the end of the high school course than at the end of the grammar school course. He does not know why!

8. In no schools is credit given for outside work in music, and a large majority of the principals are positive in their opinion that it would be neither wise nor practicable to give such credit. But the question has evidently been considered by many of the more thoughtful men. In most cases these men say it would be wise if practicable, but they cannot see how it could be regulated in their schools. A considerable number think it would be practicable as well as wise.

Several suggest that such action would compel the school authorities to discriminate between local teachers of music, which discrimination would be likely to cause trouble.

From one school comes the report that the plan had been tried but discontinued for the reason given above.

Some information has been gathered concerning the work in music in the high schools in other States. The reports show that substantially the same conditions exist in the other New England States as in Massachusetts, though the number of high schools is smaller.

Through correspondence with the State inspectors of high schools in some of the western States, I have collected some facts representative of western conditions.

In Minnesota music is said to be taught in about 75 per

cent. of the 163 high schools, but by special teachers in only 20 per cent. In other respects the work is similar to that in Massachusetts.

In Michigan music is taught in only a few of the larger high schools. The work is said to be not closely related to the work below. In Ann Arbor the high school offers a special music course in preparation for the university. In Saginaw credit is given for work done outside.

In Nebraska my informant states that music is taught in about one-third of the high schools of the State by special teachers and in another third by the regular teachers. It counts as a one-hour study in a part of the schools and where credit is given at all it is also given for outside work.

The most complete report on the high schools of any State has been made for Illinois. From this report it appears that in only 10 of the 300 high schools does music receive sufficient attention to be included in the list of subjects taught. In other schools there is some drill for commencement purposes, but this is frequently out of school hours.

In a summary of the whole number of school hours given to each subject in all the high schools of the State, while Latin and algebra have each more than 100,000 hours, music is credited with only 760 hours. Few special teachers are employed.

From a study of these reports, I conclude, first, that the opportunities for advanced musical training are more general in Massachusetts than in any other State; and, secondly, that this training is more generally in the hands of experts, teachers who have made a special study of the subject and are giving their whole time to it.

Further, it seems to me evident that the course of study prepared by the Conference on Music is now beyond the capabilities of most of the schools of the State. The teaching of musical theory is not sufficiently general, and the conception of music, as a serious study, is now too rare to warrant any but the largest schools in taking so radical a step.

In view of these facts, the secretary made a few suggestions to the Board, which he was authorized to carry into effect: —

For the sake of the pupils who would like to cultivate their musical talent, I think the subject as a serious study should receive more

generous recognition, that more time should be allowed it in school programs, that the training should be more individual, and that credit should be given for it in proportion to the time spent.

When this has been done, and not before in any school, credit might justly and safely be given for time spent on the subject out of school hours.

Looking toward these ends, I would suggest that schools be advised to consider the practicability of more thorough and more advanced work.

I would suggest, also, that conferences of music teachers be held under the auspices of the Board, in different parts of the State, in the nature of institutes, for discussion and stimulation. The subject might also profitably be introduced into the program of the high school section of the regular institutes.

In accordance with one of these suggestions, an institute for music supervisors was held in Boston on Saturday December 10, in Jacob Sleeper Hall in Boston University, which President Huntington of the university had kindly placed at the disposal of the Board. The exercises were in accordance with the following program : —

PROGRAM.

9.30 A.M. Address by Secretary of the Board of Education.

9.45 A.M. Individual and Class Teaching, . B. JEPSON,
Supervisor of Music, New Haven.

Discussion.

11.00 A.M. Work with Teachers : —

(a) By Supervisors, . . . JAMES M. McLAUGHLIN,
Director of Music, Boston.

(b) In Normal Schools, . . . Miss HELEN F. MARSH,
Worcester State Normal School.

Discussion.

Intermission.

1.30 P.M. Technical Music in Secondary
Schools, FREDERICK E. CHAPMAN,
Supervisor of Music, Cambridge.

2.00 P.M. Music Analysis in High School, . Miss MARY L. REGAL,
Springfield High School.

Discussion.

3.00 P.M. Public School Music from the Col-
lege Standpoint, Prof. L. R. LEWIS,
Tufts College.

The papers read at this meeting appear in full in the appendix to this report.

PHYSIOLOGY AND HYGIENE.

An honest and earnest effort has been made throughout the State to comply with the requirements of the statute of 1885, which made it obligatory to teach physiology and hygiene, including special instruction as to the effects of alcoholic drinks, stimulants and narcotics upon the human system, as a regular branch of study to all pupils in all schools supported wholly or in part by the public money, excepting special schools.

This statute introduced no new principle into the school legislation. Physiology and hygiene had been authorized studies since 1852, and to instil the principles of "chastity, moderation and temperance" had been made the duty of all instructors of youth since 1789.

Fortunately for the State, the Legislature has never attempted to interfere with the internal arrangements of the schools. The policy of local control has been steadfastly adhered to, and local committees have been left free to plan for instruction in physiology and hygiene as to times and places and methods, as they have been free to plan for all other subjects.

In consequence of this, there are wide differences in the amount of time and in the methods and scope of instruction. This local freedom allows for changes in the work as experience shows them to be needed.

The growth of cities and the development of urban conditions in towns in Massachusetts seem to point to some needed broadening of the work in hygiene, especially in the upper grades. To the teaching of the principles of personal hygiene, which begins with the school life of the child, there should be added as early as the sixth grade some consideration of public and home hygiene.

In the last two years of the grammar school course these subjects should be treated more in detail. In the cities, especially, thousands of children have home duties and responsibilities which necessitate some definite knowledge of hygienic and sanitary principles. The number of girls and boys also who include "minding the baby" among their daily duties is very large.

The public sanitary regulations of the board of health affect all the homes and all the people, and it is necessary that their reasonableness should be appreciated if they are to be cheerfully obeyed. For these reasons the following suggestions are offered to superintendents and committees for their courses of study : —

SEVENTH OR EIGHTH GRADE.

Work in home hygiene, as follows : —

Skin, Nails and Hair : —

Bathing, — why necessary, frequency, warm, cold.

Temperature of room.

Kind of soap and towels.

Removal of wet clothing.

Airing of clothing and of beds and bedding.

Antiseptic treatment of wounds and burns.

Cleanliness of hands in cooking.

Sense Organs : —

The eye : —

Danger of eye strain by artificial light in the house, by reading at twilight, and by reading lying down.

Eye strain a cause of habitual headache.

Protection of eyes of infants in house and in sunlight.

Care of eyes and ears after measles, scarlet fever, etc.

Muscles, Bones and Joints : —

Care of infants. Danger of continuing in one position in sitting and lying. Too early sitting and walking. Position in arms and in carriage.

Athletics, — use and abuse.

Emergencies. Bandaging and splinting.

Nerves, Brain and Spinal Column : —

Sleep : —

Necessity. Times and amount at different ages.

Conditions for baby and adult, — quiet, darkness, fresh cold air, warm body and feet. For baby and young child proper nourishment before going to sleep.

Value of labor.

Fatigue, — indications, necessity for rest.

Value of recreations.

Emergencies, — convulsions, unconsciousness, crying.

Food : —

Time and manner of eating. The table, — clean, orderly, attractive.

Behavior at table, — relation to digestion.

Keeping of food. Care of milk. Care of refrigerator.

Economy of food. Disposal of waste.

Use of alcohol in food.

Preparation of food.

Excessive use of condiments.

Danger in decaying fruit or food.

Digestive Tract : —

Care of first teeth ; sixth year molar.

Suitable dentrifices.

Care of teeth in sickness.

Harmful medicines.

Emergencies, — choking, vomiting.

First aid in accidental poisoning.

Lungs and Related Organs : —

Larynx, — proper use of voice.

Effect of furs or neck-wear.

Need of pure air.

Nature of dust.

Effect of dust upon organs.

Sweeping, — protection of hair.

Dusting ; damp cloth.

Furniture and hangings.

Wiping of feet. Brushing of clothes.

Impure air : —

Personal cleanliness.

Decaying teeth. Soiled clothing.

Care of sick as to odors.

Care of closet, care of refuse.

Standing water in basement and yard. Refuse in cellars.

Gases and odors from stoves.

Value of sunshine.

Care of invalids. Cleanliness of person and room.

Disinfection.

Heating and ventilation of house. Lack of moisture.

Emergencies, — artificial respiration, drowning, gas poisoning, suffocation, choking.

Heart : —

Taking the pulse.

Effect of position upon circulation. Fainting.

Emergencies, — tourniquet and bandages.

Contagious Diseases : —

Ways of infection. Hands, clothing, dust, food and water.

Necessity for isolation.

Laws as to isolation.

EIGHTH OR NINTH GRADE.

I. Review general physiology and personal hygiene by means of careful *theme* writing with discussion.

II. School and public hygiene : —

1. Relation of personal, home and school hygiene to the public health, as shown by statistics or transmission of disease.
Show that each person and each home may need protection from others and has a right to protection.

2. Requirements for public health.

Pure food, pure water, pure air, protection from contagious diseases, protection from alcohol and other poisons.

3. Boards of health.

Necessity for.

State.

City and town.

How chosen.

4. Protection of food supply.

Adulterations.

Meat, fish, milk, butter, fruit, vegetables.

Bakeries.

5. Protection of water supply.

Sources of local water supply.

Danger of pollution.

Means of prevention.

Danger from impure ice.

6. Protection from impure air.

Sanitary regulations of schoolhouses, tenement and lodging houses and factories, workshops and stores.

Plumbing regulations and house drainage.

Removal of garbage and waste ; sewage disposal.

Regulations concerning stables and other keeping of animals.

7. Dangerous and offensive employments.

8. Protection from contagion.

Hospitals.

Care and isolation of sick.

Exclusion from school.

9. Special school hygiene.

10. Protection from alcohol and other poisons.

SUGGESTIONS FOR THE ORGANIZATION OF THE TEACHERS OF THE STATE.

The Massachusetts Teachers' Association has recently created a subsidiary organization called the Massachusetts Council of Education. It is a representative body composed of delegates chosen by the various associations of teachers in the State. The membership is limited to one hundred.

At its first meeting in Boston, Nov. 25, 1904, the secretary of the Board of Education, by request, presented some suggestions as to the distinctive function of such a council. In doing this the whole subject of local, county and state organizations was discussed. The plan as outlined by the secretary was as follows:—

In my judgment the time has come for the teaching forces of the State to reorganize themselves for effective work, not at all for the purpose of advancing their own interests as a class but for improving popular education.

The foundation of the whole structure should be a local association in every town and city, of which the superintendent and the chairman of the school committee should be ex-officiis members. This association should hold meetings as frequently as may be practicable, for the consideration of questions of the technique of instruction and organization, and the discussion of local educational problems. Methods of teaching, governing, promoting school attendance, relations to parents, school equipment and supplies, — these are some of the subjects which a local association might profitably discuss, about which it might formulate an opinion which might have weight in shaping the local educational policy.

Through the local association and under its oversight experiments might properly be tried, and the association might pronounce upon the success or failure of such trials. This local body might be in touch not only with the school committee and parents but with the other social forces, the clergy and the clubs.

This association, being a working body, might also profitably discuss the newer phases of educational philosophy as they are presented in thought-stirring books, and they might by trial discover the relation between the conclusions of the seers and the conditions of everyday life in the schools.

Had the teachers of Massachusetts set themselves as a body to study Halleck's "Education of the Central Nervous System," Dewey's

“School and Society,” and Henderson’s “Education and the Larger Life,” with reference to practical conditions, the atmosphere would be clearer, and some schools would be better than they now are.

The local association should hear occasionally but not too often from some outside person who has a message of instruction or encouragement or spiritual uplift.

It seems to me to be a questionable practice to make the chief function of a local or county association the purveying of entertainment, or, in the modern phrase, inspiration. Inspiration which consists merely in a temporary state of mind, a brief condition of feeling good with no subsequent outcome in activity, is worse than worthless.

All psychologists agree with Mr. James in saying, “An impression which simply flows in at the eyes and ears and in no way modifies active life is an impression gone to waste. It is physiologically incomplete.” But the local association might translate the impressions received from outside into expression within its own sphere, and thus prove the value of the inspirational suggestions.

Besides all this, the association might profitably choose as one of its functions the co-operative self-improvement of its members through books and music and travel, the stimulation which the individual has received being conveyed to the whole.

I am aware of the practical difficulties which will obtrude themselves upon your thought as you listen to these suggestions. They have occurred to me. It may be urged that some cities are too large for such an association and in some towns the teachers are too widely scattered.

But these difficulties do not seem to me to be insurmountable. If the number of teachers is too large for deliberative work in a single body, this part of its work might be carried on through committees, and the results of their study be communicated to the whole.

But no city in the State is so large that its teachers do not need the stimulating and heartening influence which comes from mutual sympathy and support and co-operative efforts for the common good. It speaks much for the teachers of Boston that they have maintained an *esprit de corps* at so high a level without even the occasional inspirational outpourings which the county teachers have enjoyed in their annual conventions, or is it that higher salaries are themselves an inspiration?

The county association should be closely affiliated with the local associations and should deal with similar matters in a broader way. Its meetings are likely to be too large to be deliberative in a true sense, but if rightly organized it could consider practical questions and deal with them effectively. It should hear the results of local

experiments through persons delegated to present them by the local associations. It should, after discussion, approve and recommend such methods of school and social procedure as seem to be promising, independent of local conditions, and the local bodies should consider and judge how far these recommendations might be carried out in their own communities.

Beyond this the county association should take the initiative in proposing new methods and measures, after due discussion. Inspirational efforts in this field, too, are legitimate, but should be limited.

Within the limits of the county association and under its auspices there would be room for such special committees as composed the New England Conference of Educational Workers. That was the most wisely planned and the most effective educational organization which has worked in this State. Its usefulness made it almost too popular, so that its committees became too large for deliberation, and it finally died an unnatural death, being smothered, like the princes in the Tower, with the pillows of the Twentieth Century Club lectures.

The word "association" as applied to the county and State organizations is obviously a misnomer. The word implies a continuous working body. Each of these so-called associations is like Artemus Ward's army, which was composed wholly of brigadiers. The association is a body of officers whose sole function is to make arrangements for the annual convention.

I have pointed out how the teachers of the county might organize for continuous and useful work. It is plain that no association of the teachers of the State in the sense of a convention or mass meeting is possible. The occasion would be a rare one which would make such a meeting desirable or even justifiable.

The State association should be so named, not because it includes in its membership all the teachers of the State, but because it is representative of all parts of the State, and because it deals with subjects which are of general interest and importance.

It should deal with them in a judicial and authoritative way, authoritative in the sense that its membership would be of such a character as to position and influence, and its methods of procedure so wise and deliberate that its conclusions would serve as authority for the action of local teachers and school boards.

Its membership consisting of teachers and superintendents, the subjects with which it should deal should be such as directly affect school procedure.

It should have three standing committees: First, one on educational progress, which should be in touch with the local and county associations and with the special associations, and should report such

movements and experiments as have been brought to a conclusion and proved to be successful or to have failed, to serve as examples and warnings.

Second, an outlook committee, which should take cognizance of school efforts and experiments outside of the State and should present to the association an account of such as the committee deems worthy of notice.

Third, a business committee, which should from all the subjects brought before the association select such as seem to it worthy of special and deliberative treatment. It should be a medium through which special associations might present their claims to have matters of peculiar interest to them considered more at large.

Special committees should be chosen to consider such subjects as the business committee recommend. These committees should represent all parts of the State. They should report in print in advance of a general meeting and their report should be the main subject for discussion.

Not more than two such reports should be introduced at one meeting. These two reports, with the discussions thereon, and the reports of the outlook and progress committees, with perhaps one general address by a speaker of eminence, would present business enough for one meeting.

I doubt if, when we come to sift the material in the way I have indicated, we should find business enough of substantial value to warrant a meeting of the State association oftener than once in two years. I am strongly of the opinion that biennial meetings of the State Associations of New England and the American Institute of Instruction on alternate years would better serve the interests of education in this region than the present annual meetings of all.

By the way of concrete illustration of the kind of matters which ought for the sake of the schools to be handled in some such judicial way as I have described, there occur to me those plans to escape the evils of close grading which have in recent years been presented by their authors to the different organizations throughout the country. There have been more than a half dozen of them, — the St. Louis or Harris plan, the Woburn or Emerson plan, the Cambridge or Cogswell plan, the Pueblo or Search plan, the Elizabeth or Shearer plan, the Batavia or Kennedy plan, and the Boston or Seaver plan. The authors of these plans have implicit confidence in them, and some of these men see in these devices a panacea for many school-room ills.

If all or a considerable part of the benefits claimed for these measures could be realized, they ought to be generally known and widely adopted. Under present conditions, the men are given a respectful hearing for a half hour, their enthusiasm is admired, their judg-

ment doubted, their claims discounted, and the meetings dissolve, as all our meetings do, with no effort to examine the evidence or weigh the arguments. We go home and pursue the even tenor of our way, wondering as the time for the next meeting approaches what new crank will be let loose upon us. Before this time we should have had these plans analyzed and compared, the results of their operation studied on the ground, their elements of strength and of weakness disclosed and some judicial decision rendered. Whatever body in the United States does such work as this will be honored throughout the land.

Consider another illustration. There have been brought to the attention of the school people of the country in recent years plans for throwing upon the pupils and the schools a part of the responsibility of school government. The arguments for doing such work in the schools have appealed strongly to the friends of civic and social reform, and the National Municipal League has given much prominence to it in its meetings. The staid old Franklin Institute of Philadelphia has given a gold medal to Mr. Wilson L. Gill, a committee of its members after due consideration deeming the "School City" a unique and valuable contribution to the public welfare.

These devices have been before us in a haphazard fashion. They have been introduced into some of our schools, but they have never had the hearing which their claims warrant, and there is among us no general intelligence as to their purpose or results.

There is an enormous amount of thinking and experimenting which goes to waste, and of enthusiasm and interest which burns itself out because there is no responsible body whose function it is to hear and judge and pronounce.

I have said that the subjects with which the State association should deal are such as directly affect school procedure, and the illustrations I have used are of this class. This leaves a large and important class of problems unprovided for. They are questions of policy rather than of procedure, and the consideration of these I would make the distinctive function of the council.

Should the association decide to make no change in its organization or methods, preferring to go on in the old way, then such work as I have assigned to it should be undertaken by the council. Lest the distinction suggested between questions of policy and questions of procedure may not seem clear, let me refer to one or two which seem to me to be in the former class.

A proposition has been before the Legislature, and is now under consideration by the Board of Education, to raise the age limit of compulsory school attendance from fourteen to fifteen or sixteen. This is distinctly a question of public educational policy and not at

all a question of school procedure, and yet it affects directly or indirectly all the teachers of the State.

To raise the age limit means to give to many good scholars an opportunity of which they are now deprived to reach higher classes in the grammar school. It means that many of these getting in sight of graduation would be allowed to remain beyond the age limit that they might receive a diploma. It means that many good scholars who now graduate just within the present limit, being obliged to continue in school, would be privileged to enter the high school and would receive whatever benefits a year or two of study there could confer. Once in the high school a part of these would probably be allowed by their parents to continue and complete the course. Of such some might continue still longer and reach higher institutions, the acquisition of learning often kindling a desire for more, and parents being moved to sacrifice which the interests of the children seem to make necessary.

This is one side of the story. Raising the age limit means, on the other hand, to hold in school some children whose intentions are good but whose capacity for learning is small, whose time might more profitably for themselves be spent in some useful employment. The mental development of such children is promoted more by manual labor, coupled with responsibility, than by school study.

Besides these, and giving to the change a more serious aspect, large numbers of children would be held in school against their will. These are children, mostly boys, who have no taste for study, and not much inclination toward work of any kind. They balk at school requirements and are irked by school restraints. There are some such now held in school only by the strenuous exertion of the truant officers. They are a burden upon the teachers and a damage to the school.

To raise the age limit means to make the enforcement of law more difficult and to lay heavier burdens upon the schools.

I have not considered the change from the side of the parents, because my purpose here is to show how vital is the interest of the school people of the State in a matter purely of educational policy.

There are other subjects not so immediately pressing, but already casting their shadows before. Sooner or later, and probably sooner rather than later, the subject of industrial education is to be of vital and pressing interest. The term "industrial education" is not synonymous with "manual training," nor is it simply an extension of it, but it means a new philosophy of education and a new practice. The discussion of it means holding up the present school system, based solely on academic acquirements and the mental power gained in making those acquirements, and looking at it critically and dispassion-

ately in the light of the conditions of modern life and the requirements of modern society.

The principles, methods and results of the manual training which has been introduced would necessarily come under review, but the subject is broader and deeper, — deeper in its philosophical aspects and broader in the scope of its applications. I have used the word “dispassionate” as applied to the study. I use this because any serious consideration of the subject will encounter a passionate reverence for tradition and the resentful prejudices of long-established use and wont.

Yet the work now going on in the schools for the so-called unfortunate, schools for the feeble-minded, reform schools for truants and for vagrant and vicious children and youth, the work among the negroes in the South, — all this is opening the eyes of thoughtful people and is accumulating argument and illustration for the discussion.

The council might profitably spend the next two years in the study of this subject alone.

There is another question related in some ways to that of industrial education but not identical with it, — the question of continuation schools. This, too, is a question of policy. What extension, if any, of the scope of public education beyond the traditional work with children do the times demand? Should the public undertake to satisfy the cravings, or to create an appetite among minors and adults for more advanced academic or industrial education? Already the school committee of Boston has made interesting experiments along this line in so-called educational centres, which are industrial schools for adults and minors who have left school. Are such schools legitimate? What should be their scope? Are there any limits to what communities may legitimately undertake to do? Are there obligations in this direction which they may not lightly ignore? The whole subject is now open, and there is need of thorough study and conclusive discussion. It is one of many social problems which will speedily press for solution. To the solution this council might contribute much.

These new lines of investigation will inevitably force to the front another one, namely, the question of cost considered as a matter of public policy. How heavy should be the financial burden which a community should assume for public education in view of all the other social needs? Executive officers in towns and cities are arrogating to themselves the exclusive right to answer these questions. And in most cases they are answering them in a narrow and one-sided way.

The ultimate authority in the matter is the public, and the school people ought to be prepared by the most thorough study of social economics to present their side of the question before the bar of public opinion. They should be able to convince the public that although they are school people they are not necessarily devoid of business sense and are not necessarily visionary and extravagant.

I am not attempting in this paper to make an exhaustive inventory of subjects which the council might consider, but only to suggest certain problems by way of illustration of the kind of work waiting to be done. I venture to refer to two subjects which seem perhaps to come more closely home to us. One is the relation of the colleges to the secondary schools. This is a delicate question and an old one, but it has been discussed mainly by the teachers in the secondary schools, and by them in the spirit of protest against what seemed to them a narrow and arbitrary policy on the part of the colleges. The colleges have maintained an attitude of lofty disdain so far as the fundamental contention of the secondary school people has been concerned, although they have made some concessions in the direction of uniform entrance requirements.

The question is one in which the people of the State as well as the colleges and high schools are interested.

Now that the State has broadened its policy so as to offer a high school education to the youth of all the towns, and is supplementing local effort by direct drafts upon its own treasury, it has an interest in knowing whether the high schools are being narrowed in their functions and thus limited in their usefulness by the adherence of the colleges to traditional usages. To study this question, to ascertain the facts and to formulate an opinion would be a useful piece of work for the council to undertake. The opinion of this body, supported by facts and defended by arguments, would have great weight in shaping public opinion, and might lead to some important changes in public policy.

The pensioning of teachers is another subject which has been much discussed in a desultory way, but which has never received serious consideration of a scientific character. Its relation to the success of any public school system may be so intimate that it should be studied in a comprehensive and impartial way by some body of recognized standing in whose intelligent grasp and judicial fairness the public would have confidence.

All of these subjects and others are so broad and far-reaching in their nature and influence that they need to be lifted out of the atmosphere of conjecture and individual opinion and personal interest and prejudice into the calm, clear air of scientific investigation.

I believe that such work well done would give dignity and influence in the community to the school people of the State and would react profoundly upon the profession itself.

The recommendations made in the foregoing report may be summarized as follows : —

That the minimum length of the high school year be fixed at thirty-eight weeks, exclusive of vacations.

That the wages of teachers be increased.

That retirement funds for teachers be made more general.

That a third year in the normal schools be used half for practice under actual school conditions and half for intensive study.

That a State normal school be established to qualify teachers for high schools.

That the office of school superintendent be made more attractive by extension of authority and greater security of tenure.

That music be made a more substantial study in high schools.

That the study of physiology and hygiene be broadened by including the hygiene of the home and public hygiene.

That the teachers of each town and city organize themselves for professional study, and that the county and State associations treat subjects relating to school procedure in a more scientific and judicial way.

Respectfully submitted,

GEORGE H. . MARTIN,

Secretary.

FINANCIAL STATEMENTS.

THE MASSACHUSETTS SCHOOL FUND.

The following statement shows the condition of the Massachusetts school fund : —

Amount of fund Jan. 1, 1904,	\$4,670,548 14
Increase of fund during the year, under the provisions of chapter 90, Resolves of 1894,	\$100,000 00
Increase of fund during the year, under the provisions of chapter 189, Acts of 1904,	9,562 52
	109,562 52
Amount of fund Dec. 31, 1904,	\$4,780,110 66
Gross income for 1904,	\$214,224 13
Paid for accrued interest on securities purchased,	2,898 55
Net income,	\$211,325 58

The last-named amount has been distributed to the cities and towns, as provided by law.

The following table shows the amount of the principal of the Massachusetts school fund at the close of business, December 31, from 1891 to 1904, both inclusive, and the annual income for same term, as shown by the books of the Treasurer and Receiver-General : —

YEAR.	Principal.	Income.
1891,	\$3,655,761 85	\$138,625 68
1892,	3,655,761 85	167,229 65
1893,	3,670,548 14	167,258 23
1894,	3,770,548 14	167,210 54
1895,	3,870,548 14	172,729 65
1896,	3,970,548 14	175,165 64
1897,	4,070,548 14	189,808 71
1898,	4,170,548 14	204,612 61
1899,	4,270,548 14	208,462 61
1900,	4,370,548 14	213,066 18
1901,	4,470,548 14	366,656 51
1902,	4,570,548 14	220,731 77
1903,	4,670,548 14	197,379 93
1904,	4,780,110 66	211,325 58

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION.
APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS.

Dr.				Cr.
1904.	1904.	1904.	1904.	
Expended for Bridgewater Normal School,	\$45,780 82	Appropriated for 1904 (chapter 98, Acts of 1901),	\$271,298 00	
Expended for Fitchburg Normal School,	43,099 37	Received from city of Fitchburg,	14,499 40	
Expended for Framingham Normal School,	32,119 49			
Expended for Hyannis Normal School,	22,595 00			
Expended for Lowell Normal School,	29,627 04			
Expended for North Adams Normal School,	28,816 00			
Expended for Salem Normal School,	29,886 38			
Expended for Westfield Normal School,	29,134 73			
Expended for Worcester Normal School,	24,724 79			
	\$285,783 62			
	13 78			
Balance unexpended,		\$285,797 40		\$285,797 40

Bridgewater Normal School :—				
Salaries,	\$25,784 46	Appropriation apportioned by the		\$45,781 00
Model schools,	7,505 96	Board,	.	.
Wages and labor,	4,250 00		.	.
Maintenance of buildings,	5,976 62		.	.
School supplies,	1,949 91		.	.
Miscellaneous,	313 87		.	.
Balance unexpended,	18		.	.
	\$45,781 00			\$45,781 00
Fitchburg Normal School :—				
Salaries,	\$13,149 91	Appropriation apportioned by the		\$28,600 00
Model school,	17,931 32	Board,	.	.
Wages and labor,	3,335 48	Received from city of Fitchburg,	.	.
Buildings and grounds,	5,674 24		.	.
School supplies,	2,158 24		.	.
Lectures,	500 00		.	.
Miscellaneous,	350 18		.	.
Balance unexpended,	03		.	.
	\$43,099 40			\$43,099 40
Framingham Normal School :—				
Salaries,	\$15,052 38	Appropriation apportioned by the		\$32,121 00
Model school,	4,877 06	Board,	.	.
Wages and labor,	4,599 91		.	.
Building and grounds,	6,207 95		.	.
	\$30,737 30	Amount carried forward,	.	.
				\$32,121 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.
APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — *Continued.*

Dr.		Cr.
1904.	Amount brought forward, . . .	1904.
Framingham Normal School — <i>Con.</i>	\$30,737 30	Amount brought forward, . . .
School supplies, . . .	953 34	
Lectures, . . .	50 00	
Miscellaneous, . . .	378 85	
Balance unexpended, . . .	1 51	
	\$32,121 00	
Hyannis Normal School:—		Appropriation apportioned by the Board, . . .
Salaries, . . .	\$9,173 92	
Model school, . . .	2,969 37	
Wages and labor, . . .	2,015 06	
Buildings and grounds, . . .	4,199 79	
School supplies, . . .	886 67	
Lectures, etc., . . .	205 25	
Summer session, . . .	2,069 24	
Miscellaneous, . . .	1,075 70	
	\$22,595 00	
Lowell Normal School:—		Appropriation apportioned by the Board, . . .
Salaries, . . .	\$16,449 72	
Model schools, . . .	4,914 65	
Wages and labor, . . .	2,765 75	
Buildings and grounds, . . .	3,299 91	
School supplies, . . .	1,497 14	
Lectures, . . .	275 35	
Miscellaneous, . . .	424 52	
Balance unexpended, . . .	7 96	
	\$29,635 00	
		\$32,121 00
		\$22,595 00
		\$29,635 00

North Adams Normal School: —					
Salaries,	\$14,797 37				
Model school,	4,859 67				
Wages and labor,	2,989 83				
Buildings and grounds,	4,669 08				
School supplies,	1,144 43				
Lectures,	101 62				
Miscellaneous,	254 00				
		\$28,816 00			\$28,816 00
Salem Normal School: —					
Salaries,	\$19,800 10				
Model school,	2,920 53				
Wages and labor,	2,686 06				
Building and grounds,	2,430 97				
School supplies,	1,619 86				
Lectures,	186 66				
Miscellaneous,	242 20				
Balance unexpended,	3 62				
		\$29,890 00			\$29,890 00
Westfield Normal School: —					
Salaries,	\$12,000 00				
Model school,	5,750 00				
Wages and labor,	3,670 00				
Buildings and grounds,	4,939 91				
School supplies,	2,418 00				
Lectures, etc.,	57 75				
Miscellaneous,	299 07				
Balance unexpended,	27				
		\$29,135 00			\$29,135 00
Appropriation apportioned by the Board,					\$28,816 00
Appropriation apportioned by the Board,					\$29,890 00
Appropriation apportioned by the Board,					\$29,135 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

Dr.

APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS — *Concluded.*

Cr.

1904.	Worcester Normal School:—	\$	1904.	Appropriation apportioned by the Board,	\$
	Salaries,	15,074 57			
	Model school,	2,399 88			
	Wages and labor,	1,255 01			
	Buildings and grounds,	3,661 89			
	School supplies,	2,178 71			
	Miscellaneous,	154 73			
	Balance unexpended,	21			
					\$24,725 00
					\$24,725 00

APPROPRIATION FOR NORMAL ART SCHOOL.

1904.		\$	1904.	Appropriation (chapter 98, Acts of 1904),	\$
	Salaries,	23,215 55		Deficiency,	93 23
	Wages and labor,	2,800 20			
	Building and grounds,	2,298 87			
	School supplies,	237 59			
	Lectures,	510 00			
	Miscellaneous,	277 02			
					\$29,339 23
					\$29,339 23

APPROPRIATION FOR SALARIES OF SECRETARY AND EMPLOYEES.

1904.			1904.	Appropriation (chapter 316, Acts of 1904),	\$20,000 00
	George H. Martin, secretary, March to December,	\$3,750 00			
	John T. Prince, agent,	2,500 00			
	G. T. Fletcher, agent,	2,500 00			
	J. W. MacDonald, agent,	2,500 00			
	Walter Sargent, agent,	2,500 00			
	Ellis Peterson, agent,	437 57			
	A. C. Macdonald, chief clerk,	1,000 00			
	E. E. Elwell, clerk,	840 00			
	C. B. Blake, clerk,	605 00			
	Balance unexpended,	3,367 43			
				\$20,000 00	
					\$20,000 00

APPROPRIATION FOR TRAVELLING EXPENSES OF AGENTS.

1904.			1904.	Appropriation (chapter 316, Acts of 1904),	\$3,000 00
	John T. Prince,	\$307 79			
	G. T. Fletcher,	472 97			
	J. W. MacDonald,	434 70			
	Walter Sargent,	362 10			
	Ellis Peterson,	39 08			
	Balance unexpended,	1,383 36			
				\$3,000 00	
					\$3,000 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR.

APPROPRIATION FOR AID TO NORMAL PUPILS.

CR.

1904.	Amounts paid : —	1904.	Appropriation (chapter 98, Acts of 1904),	\$4,000 00
	Bridgewater school,		\$681 80	
	Fitchburg school,		106 05	
	Framingham school,		151 50	
	Hyannis school,		106 10	
	Lowell school,		75 75	
	North Adams school,		181 80	
	Salem school,		90 90	
	Westfield school,		560 60	
	Worcester school,		45 50	
	Balance unexpended,		2,000 00	
			\$4,000 00	\$4,000 00

APPROPRIATION FOR INCIDENTAL EXPENSES.

1904.	Amounts paid : —	1904.	Appropriation (chapter 98, Acts of 1904),	\$2,000 00
	Printing,		\$447 32	
	Postage,		352 65	
	Expressage,		299 32	
	Stationery,		134 01	
	Advertising,		120 30	
	Books and binding,		83 90	
	Telephone and messenger,		22 72	
	Frames,		18 25	
	Balance unexpended,		521 53	
			\$2,000 00	\$2,000 00

APPROPRIATION FOR EXPENSES OF MEMBERS OF THE BOARD.

1904.	Amounts paid : —	1904.	Appropriation (chapter 98, Acts of 1904),	\$1,000 00
Mar. 25,	C. Q. Richmond, .			\$49 98
May 11,	A. E. Winship, .			18 70
June 28,	E. H. Capen, .			25 38
Aug. 13,	C. Q. Richmond, .			40 51
Nov. 7,	A. E. Winship, .			20 69
Dec. 7,	J. D. Miller, .			42 45
9,	Geo. I. Aldrich, .			79 45
20,	Kate G. Wells, .			53 66
	Balance unexpended, .		\$1,000 00	669 18
				\$1,000 00

APPROPRIATION FOR TEACHERS' INSTITUTES.

1904.	Paid for instructors and expenses of institutes at Bernardston, Buckland, Charlemont, Chester, Dalton, Dighton, Leominster, Marlborough, Tisbury, Uxbridge, West Brookfield, West Stockbridge, Winchendon, and music and art institute in Boston, .	1904.	Appropriation (chapter 98, Acts of 1904),	\$2,000 00
	Balance unexpended, .			\$1,076 19
			\$2,000 00	923 81
				\$2,000 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR.	APPROPRIATION FOR REGISTERS AND BLANKS.			CR.
1904.	Paid for printing, Paid for paper and twine, Balance unexpended,	\$760 39 8 31 431 30	1904. Appropriation (chapter 98, Acts of 1904), \$1,200 00	\$1,200 00 \$1,200 00
APPROPRIATION FOR EDUCATION OF ADULT BLIND.				
1904.	Expended for teachers and their travelling expenses, Balance unexpended,	\$4,910 79 89 21	1904. Appropriation (chapter 20, Acts of 1904), \$5,000 00	\$5,000 00 \$5,000 00
APPROPRIATION FOR EDUCATION OF DEAF CHILDREN.				
1904. Jan. 12, Feb. 24, Mar. 12,	Amounts paid as follows: — Clarke School: 116 pupils, quarter commencing Jan. 1, 1904, Boston School for the Deaf: 49 pupils, Sept. 15, 1903, to Jan. 31, 1904, American School: 62 pupils, quarter commencing March 1, 1904, Horace Mann School: 135 pupils, Feb. 1 to July 1, 1904,	\$7,488 24 5,015 38 3,875 00 8,672 67	1904. Appropriation (chapter 98, Acts of 1904), Deficiency,	\$78,000 00 206 28

Apr. 14,	Transportation, Nov. 15, 1903, to Feb. 15, 1904,	940 57		
	Clarke School: 145 pupils, quarter commencing April 1, 1904,	7,112 50		
20,	Travelling expenses,	9 35		
	Sarah Fuller Home: 10 pupils, quarter commencing April 1, 1904,	496 42		
May 31,	Boston School: 49 pupils, half year ending June 15, 1904,	5,875 02		
June 8,	Horace Mann School: Transportation to May 15, 1904,	880 00		
July 26,	American School: Clothing to July 1, 1904,	491 59		
	Sarah Fuller Home: 12 pupils, quarter ending July 1, 1904,	578 04		
	Clarke School: 135 pupils, quarter commencing July 1, 1904,	7,206 29		
	Sarah Fuller Home: Education of 15 children of defective speech,	140 85		
Aug. 15,	American School: 61 pupils, quarter commencing June 1, 1904,	3,750 00		
	<i>Amount carried forward,</i>	<i>\$52,531 92</i>	<i>Amount carried forward,</i>	<i>\$78,206 28</i>

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONCLUDED.

APPROPRIATION FOR EDUCATION OF DEAF CHILDREN — *Concluded.*

Dr.

Cr.

1904.	Amount brought forward, Amounts paid as follows — <i>Con.</i>	\$52,531 92	1904.	Amount brought forward, . .	\$78,206 28
Oct. 10,	Sarah Fuller Home: 7 pupils, quarter ending Oct. 1, 1904,	462 23			
20,	Clarke School: 116 pupils, quarter commencing Oct. 1, 1904,	7,175 00			
25,	American School: 60 pupils, quarter commencing Sept. 1, 1904,	3,750 00			
Nov. 1,	Horace Mann School: 138 pupils, Sept. 1, 1904, to Feb. 1, 1905,	8,297 50 714 63			
16, 28,	Perkins Institution: Cora Crocker, deaf, dumb and blind, to Oct. 1, 1904, . . . Marion Rostrom, deaf, dumb and blind, to Oct. 1, 1904, . .	700 00 700 00			
Dec. 8,	American School: 60 pupils, quarter commencing Dec. 1, 1904,	3,875 00			
		\$78,206 28			\$78,206 28

C. B. TILLINGHAST, *Treasurer.*

APPENDICES.

APPENDIX A.

REPORT OF JOHN T. PRINCE,

AGENT OF THE BOARD.

REPORT.

To the Board of Education.

A good part of the year just closed was spent in school inspection, for the purpose primarily of ascertaining and reporting to the secretary the character of the work done by the superintendents in unions. With this object in view, visits varying from one to three days in length were made in each of forty-five superintendency unions. In view of the fact that the unions visited are in all parts of the State, and that the impressions gained are now fresh in mind, I have thought it best to make some of the conclusions reached the basis of this report.

At the outset I desire to express my appreciation of the devotion and general efficiency of the superintendents now employed in the unions. With few exceptions, they are performing a service for the schools of the smaller towns quite as important as any work which has ever been done for them. Many of the superintendents have seemed to effect an entire change in the work and spirit of the schools. This has been especially apparent in my recent visits, because of the fact that some of the schools visited I had not seen for several years, and therefore a good opportunity for comparison was afforded.

POWERS AND DUTIES OF SUPERINTENDENTS.

As is well known, the powers and duties of superintendents of schools in this State are determined wholly by the school committees. From an extended inquiry made in 1899 I was prepared to find in my recent visits a good degree of authority given to superintendents, but not the extent and kind of authority actually found. My present inquiry respecting the powers conferred upon superintendents by school committees embraced the following points: (*a*) teachers, (*b*) text-books, (*c*) course of studies, (*d*) promotion of pupils. To my surprise I found that nearly all the school committees give to the

superintendents all that the law permits them to give in every one of the above particulars. Final action regarding the election of teachers and choice of text-books devolves by law upon the school committee, but in almost every case the committee give the superintendent power to recommend teachers for appointment, and, what is of more significance, they very generally approve his recommendations.

Now and then a town is found whose school committee deem it necessary or advisable to keep wholly in their hands all the powers they ever had, including the appointment of teachers and the selection of text-books. In such towns home teachers with little or no fitness for their work are employed, and the superintendent is so limited in his powers as to make his work of little account.

The great improvement that has been made in the past few years in the prerogatives of superintendents gives assurance that before many years the superintendent in every town and city of the Commonwealth will have accorded to him by the committee all the powers, professional and otherwise, that he should have. Until that time comes it is only fair to question whether, in the interests of the few schools now improperly supervised, there should not be given to the superintendent certain legally prescribed duties, or, at least, whether some duties now assumed by the school committees should not be withheld from them. An added argument in favor of some readjustment of supervisory powers lies in the fact that in a few of the towns in which the superintendent's powers are restricted the teachers are selected not by the combined wisdom of the school committee, but by a plan essentially the same as that which was pursued by prudential committees forty years ago. Each member of the committee under this plan has one or more schools which are generally regarded as "his;" that is, he personally sees to the selection and retention of the teachers, and looks after the supplies and repairs. The committee may or may not ratify his choice of teachers, the understanding being that each member is alone responsible for the school or schools of which he has charge, and that no member is to interfere with the plans of any other member. Generally when this plan is followed the chief consideration in the selec-

tion of a teacher is not efficiency, but place of residence. Sometimes it happens that of such a committee one member alone, more progressive than the rest, will seek and follow the advice of the superintendent. As a consequence, there are found in the same town teachers of the most varied attainments and efficiency.

Nor is the danger of poor appointments, arising from a perversion of power on the part of the school committee, confined to small towns; the superintendent of one city system informs me that he has but little to say in the selection of teachers, and that he even does not always know whom the teachers' committee are to nominate, until the nominations are announced at a meeting of the board. The same, he says, is true of text-books.

In respect to the powers and duties of the superintendent, other than those relating to the appointment and dismissal of teachers, there is in present practices but little to criticise. The making of a course of studies and the promotion of pupils are almost universally left to the superintendent. The same is true of the calling and conducting of teachers' meetings. It should be said, however, that in a few cases the unwillingness of the committee to close the schools for half a day for a teachers' meeting has seriously hampered the superintendent in that part of his work.

In the selection of books the superintendent's advice is generally sought and followed. Now and then there are members of the committee who, encouraged perhaps by generous publishers and agents, insist upon the prerogatives they held before the days of skilled supervision, and duly examine and report upon books submitted to them.

All matters relating to the inspection and direction of the teachers' work are in almost every town left wholly to the superintendent. I do not recall a single instance during the past year in which the committee or any member of it has interfered in the slightest way with the superintendent, either in his plans of work or in his efforts to carry them out. The danger lies too often in the superintendent not having plans and ideas enough as to the work of the school, or in his not having the courage to make them known.

While the general practice of giving large powers into the hands of the superintendent is very gratifying, and while in most instances this practice is likely to continue, it is a source of regret that more committees do not see fit to adopt rules by which the powers and duties of the superintendent are exactly defined. Such rules need not be very minute in character, but should be so definite as to prevent both school committee and superintendent from interfering with each other's prerogatives. Much of the friction now existing in the administration of schools would be avoided if there were a clear understanding on the part of every official as to what his duties are. This subject was discussed in some detail in my report of five years ago. A summary of the suggestions there made was embodied in a set of rules which might properly be adopted by school committees, with such modifications as conditions would make necessary. The rules are here reproduced, together with some comments made in the report referred to upon the powers and duties of superintendents in general.

RULES RELATING TO THE DUTIES OF THE SUPERINTENDENT OF SCHOOLS.

I. *General Powers.*—It is the province of the superintendent to manage and direct the work of instruction and training in the schools, and to advise in all other matters which have any relation to such work.

II. *School Buildings.*—In all work of construction and alteration of school buildings the superintendent shall advise respecting matters which relate to the convenience of the school and health of the pupils.

III. *School Equipment.*—He shall advise as to the kind and quantity of furniture and furnishings needed for each school. He shall also recommend all text-books and reference books that are needed, and no books shall be selected by the board in opposition to his recommendation. Apparatus and ordinary supplies within the appropriation made by the board for that purpose may be ordered under his direction as they are needed.

IV. *Course of Studies.*—He shall prepare and recommend to the board for adoption a course of studies for the schools, and any changes that he may from time to time deem advisable. No course of studies or any part of a course shall be adopted without the sanction of the superintendent.

V. *Teachers.*—It shall be the prerogative of the superintendent to recommend suitable persons for positions as teachers, and the board shall elect no teacher not recommended by the superintendent. He shall assign to places all teachers elected by the board, and transfer teachers from one school to another whenever in his opinion such transfer will secure greater efficiency in the schools.

He shall fill all vacancies occasioned by the absence of teachers, and recommend to the board the suspension or dismissal of any teacher, when-

ever in his judgment such suspension or dismissal is necessary for the good of the schools.

He shall inspect and examine the schools frequently, and make such suggestions to teachers as will assist them in their work. He shall at proper times hold meetings of teachers for a discussion of the principles and methods of school work, and shall at his discretion give permission to teachers to attend teachers' conventions or institutes and to visit schools.

VI. *Pupils.*—The superintendent shall arrange for the proper classification and promotion of pupils, with the sole object of placing each pupil at any time where he can do the most for himself. He shall excuse any pupil from pursuing one or more subjects of study and from attending school a portion of the time, whenever in his judgment the best interests of the pupil are served by such action. He shall pass judgment in the case of suspended pupils, either returning them to the schools or reporting them to the school committee, with such recommendations as he may see fit to make.

VII. *Meetings of the Board.*—He shall attend all meetings of the board, and have the privilege of speaking upon any question before it, but not of voting. Opportunity will be given him at each regular meeting to make a report upon the condition of the schools, and to present recommendations for its action.

It will be observed that the foregoing rules do not treat of the minor details of the superintendent's duties, such as keeping needed records of his office, ringing the bell for no session of the schools, and providing for the transfer of pupils. Nor are those duties mentioned which he is required by law to do, such as excusing cases of necessary absence from school and signing school attendance blanks. All these and other duties are either understood or may be defined at any time by special vote of the board. Moreover, the proposed rules do not hedge him about with requirements and restrictions as to the precise manner in which he should spend his time. The rules should be made upon the presumption that the superintendent is a person of ability, common sense and integrity. If he is wanting in any one of these necessary virtues, no rules will make him what he ought to be, and no rules ought to be necessary to show to the committee his unfitness for the work.

The question may be raised whether the powers and duties of a superintendent of schools, as outlined above, fairly or fully meet the needs of supervision in the large cities. It has been assumed in recent years that such cities present difficulties which cannot be met by means ordinarily used in the smaller cities. So strong is this feeling in some cities, that a radical change of school administration is advocated by earnest reformers. No doubt the form of the superintendent's work should vary somewhat with the number of schools he has to care for; but it is a serious question whether the great

extent of his work should lessen the professional character of it. With the assistance that ought to be given, and conditions of freedom from politics, there is no more reason why a superintendent of a large system of schools should be engrossed in unprofessional administrative details than is the superintendent of a small system. The chief difference lies in the amount of work delegated to others. There is needed the same professional knowledge to properly direct the work in both positions, and the responsibility, though differing in amount, does not materially differ in kind. With a very small system of schools the superintendent personally directs the teachers and attends to the few needed matters of business. In a small city system he should have the aid of a clerk to attend to business details, and supervising principals and special teachers to whom he can delegate certain supervisory duties. In a larger system he should, in addition to these helpers, have one or more assistant superintendents to aid him, and a business manager to whom all matters of repairs and supplies should be committed. In all these positions the superintendent ought to have a clear professional policy, and see that it is carried out. It is believed, therefore, that the functions here laid down might well be exercised by superintendents in any system of schools. They at least may serve as a basis or guide for that division of functions and responsibilities between a school board and the superintendent which is necessary to harmonious relations and the most effective service. The fact that such powers and duties of superintendents as are outlined above are not exercised in all towns and cities by the Commonwealth may naturally prompt the inquiry whether they, or some other carefully considered functions, should not be established by law.

THE TEACHING FORCE.

In no one particular is the improvement of the rural schools more manifest than in the general character and efficiency of the teachers. This has been brought about from various causes, among which may be mentioned: (1) increased aid from the State, by which better salaries are paid; (2) increased number of normal schools, and a consequent increase in the number of trained teachers; and (3) the changed character of the supervision. All of these causes, however, are but the direct results of the desire of the people to have the best schools that can be had, and the growing appreciation on their part of the importance of equalizing conditions as far as possible throughout the Commonwealth.

One indication of the improved character of the teaching in the smaller towns is seen in the increased number of normal graduates employed as teachers in those towns. Twenty and even ten years ago the number of such graduates in towns of less than ten thousand inhabitants was comparatively small. Ten years ago 16 of the 32 towns of Berkshire County reported that no normal graduates were employed as teachers during an entire year. At this time there were in all the schools of the county only 56 normal graduates, more than half of whom were employed in 3 towns. Last year there were employed in the county 201 graduates of normal schools, and only 2 towns were reported as employing none.

A closer view of conditions as they exist in superintendency unions shows even more clearly the improved character of the teaching force. A few examples will be given, which fairly represent the improved conditions in nearly all the unions.

In the union embracing the towns of Clarksburg, Hancock, Lanesborough and New Ashford, there were reported last year 14 teachers as having graduated from normal schools. Ten years ago the same towns reported as employing but 5 of such graduates as teachers. The average monthly salary paid to men and women teachers in the year 1893-94 was as follows: Clarksburg, \$28.66; Hancock, \$27.66; Lanesborough, \$32.67; New Ashford, \$34.22. The corresponding amounts reported last year were: Clarksburg, \$40; Hancock, \$29.67; Lanesborough, \$39.25; New Ashford, \$40; giving an average increase of 15.4 per cent. in the last ten years, or just about the same as the average rate of increase of women's salaries in the State at large.

The towns which now constitute the Charlemont union reported that in the year 1893-94 there were employed in all 64 different teachers for 39 schools. Of this number but 1 was reported as having graduated from a normal school, and 7 as having attended a normal school without graduating. There is no record of the qualifications of the other 58 teachers, but it is safe to say that a large proportion of them had but little education beyond that of the schools in which they were teaching. Of the conditions last year in this union the superintendent reports as follows: "Last year (1903-04) there were

37 schools in this union, taught by 54 different teachers. Of these, 1 was a college graduate, 5 had attended college without graduating, 5 were normal graduates, 16 had attended normal school without graduating, 21 were high school graduates, 4 had attended high school without graduating." The average monthly salary of the teachers in the towns constituting this union ten years ago was \$27.20; last year it was \$33.67, — a gain of 23.7 per cent.

The above-named unions are in the western section of the State, where the conditions are supposed to be less favorable for the support of good schools than they are in other sections, and where in consequence the improvement under skilled supervision would be likely to be more manifest than it is elsewhere. Some of the unions in the eastern section are not far behind in the improvement of conditions noted. In the Vineyard union, for example, there were ten years ago but 4 teachers who had graduated from a normal school. Last year there were reported as teachers in the union 14 normal graduates, — more than half of the entire corps. During the period indicated the average salary per month of women teachers has risen from \$33.83 to \$39.40.

It should be said that the conditions noted above were those which existed before the recent increase of aid given by the State. It is hoped and expected that, when the full benefits of increased appropriations are realized, the improvement will be still more marked.

Sometimes there are found in a single union towns quite unlike in the degree of interest manifested and in apparent progress. In the Lee union one of the towns having 5 schools employed in the year 1893-94 2 normal graduates as teachers, and paid the teachers an average of \$27.48 a month. The same town last year employed but 1 normal graduate, and paid an average of but \$24.80 a month to the teachers. Another town in the same union having 5 schools increased in ten years the number of normal graduates from 1 to 4, and also increased the average monthly salary of teachers from \$24 to \$32.80.

In recent years there has been a great increase in the number of college graduates employed as teachers in the elementary

schools. While these teachers may not do as good service at first as those who have been trained in our normal schools, it is generally conceded by superintendents that their superior scholarship and academic training offset in a large degree their lack of professional training, and that, after a season of practice under a superintendent, they become as a rule excellent teachers. Most of the colleges now offer one or more courses in psychology and pedagogy for those who intend to teach. These courses are doubtless very helpful, but they are, as generally given, quite insufficient. In addition to theories of education, the candidates need abundant practice in teaching under wise direction before they can have that skill and feeling of mastery which are essential to success. A few college graduates have availed themselves of the privilege of a year's professional training offered by some of our State normal schools and by the Boston Normal School. The success of those college graduates who have received the normal certificate ought to be an encouragement to others to take the course.

SALARIES OF TEACHERS.

It is gratifying to note that far more towns in the superintendency unions have increased the salaries of teachers than have reduced them. In the last report of the Board of Education it was stated that there were 19 towns which paid an average of less than \$30 a month to female teachers. According to the present report, this number is now reduced to 12. In only 2 of the 19 towns above referred to were the salaries of teachers reduced. It is to be hoped that next year's returns will show that no town in the State pays an average of less than \$30 a month. With the increased aid to towns from the State, the minimum average should be as high as \$35 a month.

THE STATE SCHOOL FUND.

Last year the entire income from the State school fund was distributed to the towns of low valuation, instead of half of it, as formerly. In consequence, some of the towns received nearly double the amount which they had formerly received. The full results of the increased aid are not yet known, but present indications are not as promising as many friends of the

new law had hoped. Most of the towns benefited have, it is true, appropriated as much money for schools as they did before the increased aid from the State was given; some of them have even increased their appropriation; but a few towns have apparently made the increased aid the occasion not of improving their schools, but of lessening their own appropriations. This impression is gained from the oral reports of superintendents and from the abstracts of returns, showing the disposition of certain towns to reduce their appropriations for schools whenever the State increases its aid. It is difficult to ascertain at present exactly how many towns have done this in the present instance; but from available statistics and other sources of information it would appear that upwards of 20 towns have taken advantage of the new law to reduce their appropriations.

Although the number of towns is small that are inclined to reduce the local appropriation for schools on account of the increased aid from the State, to the few towns that are so inclined there should be some check. As was indicated in a letter to the school committee from the acting secretary of the Board of Education last year, "The intent of the law is to improve the schools, not to lessen local taxation." This the towns should fully understand; and if in any case a town persists in defeating the evident purpose of the law by misusing the State fund, there should be applied such a remedy as will best protect the interests of the schools. If the only harm to the schools of such a town were in keeping the salaries of teachers below what they ought to be, and thus perpetuating conditions of mediocrity, the results would not be so serious. But the harm does not stop here. The lessening of local taxation for the schools is likely to occasion a lessening of interest in education on the part of the people, and a distinct lowering of standards demanded.

It is interesting to note the class of towns that seem to be willing to lessen their own efforts upon every occasion of increased aid from the State. It is true that the conditions of taxation are not alike in the various towns, and that some towns have found it very difficult to raise the amount needed to carry on the schools; yet, with all possible allowance for differences of conditions in towns, the difference in educa-

tional interest and consequent effort to support good schools is very apparent. Where the interest in education has been weak, there is always found a ready willingness to substitute State aid for local effort at every opportunity, and to keep the schools as they are. But where the educational spirit has been strong, assistance from any source is not made the occasion of diminishing local effort, but is made the means of improving conditions. Examples of this difference of attitude toward the schools are not difficult to find. In one of the western counties there are 2 towns of about the same size and external conditions. One of them received last year from the State nearly \$300 more than the year before, and increased the average wages of teachers over \$6 a month. The other town received from the State about the same increase as the former, and reduced the wages of the teachers nearly \$2 a month. The latter town made a saving of over \$400 in the amount raised; but the saving made by the former town, although it could not be measured in dollars and cents, was doubtless far greater.

HIGH SCHOOL PRIVILEGES.

The operation of the law in regard to State aid for high schools and to State reimbursement for high school tuition has been attended with beneficial results in various ways. It has greatly strengthened small high schools, by enabling them to increase the teaching force and offer extended courses of study. In towns that have no high school it has encouraged attendance upon high schools in other places, and has relieved small towns of the burden of high school support which they were unable to bear. In addition to all this, it has been the means of stimulating and improving the work of the elementary schools by setting before teachers and pupils a standard of effort and attainment much higher than they formerly had, and by helping to create a strong educational spirit in the community.

Several instances of improved conditions, as a result of carrying out the provisions of these laws, have been called to my attention during the year. One town a few years ago had a small school of a dozen pupils, which was called a high school, but which was of little higher grade than a grammar school. The instruction was poor, and there was but little interest in

the work. The promised aid of \$300 from the State and the advent of a superintendent of schools induced the authorities to extend the laboratory facilities and engage two competent teachers. The school was approved, and is now doing excellent work with its 25 or 30 pupils. Two or three of its graduates prepared for higher institutions last year, and there are as many more preparing this year. A good educational sentiment has been aroused in the community, and the lower schools are doing better work than ever. An instance of the benefits of the high school reimbursement law is that of a town in which a poor, low-grade high school was abandoned, and over 20 pupils attended a good high school, out of town.

Of course there is a question whether as many pupils will attend a high school out of town as will attend a home school. But when, as in the last instance cited, the town pays the transportation expenses, there is little danger of diminished attendance. There is also the question of the conduct of pupils in transportation to be considered. In one instance during the past year my attention was called to certain dangers of contamination to which a number of high school pupils were exposed on their way to and from school in the steam cars. Too great care cannot be taken by the authorities in this regard. If dangers of contamination from this cause cannot be prevented, it will be much better to give up the transportation of pupils and establish a local school, even though the facilities of the local school be inferior to those of the other school.

In comparing the merits of a small local high school and a larger school in an adjoining town, all sides of the question of numbers should be considered. It is wisely claimed that as many classes are needed for a small high school as for a larger one, and that therefore a relatively large number of teachers are required for the small school. It is also claimed, and wisely, that a greater degree of interest is likely to be awakened in large classes than in the small ones. On the other hand, the advantage of an increased opportunity for undivided attention in the small high school should be considered, and also the fact that shorter periods are needed for very small classes than for large ones. All these circumstances with others should be carefully considered by towns in

making the choice between the two alternatives of aid offered by the State.

On the whole, it may be said that the high school conditions in Massachusetts are very satisfactory. With the increase in car facilities and liberal aid in the transportation of pupils, it may soon be said, if it may not already be said, that there is not a boy or girl in Massachusetts that is not within fairly easy reach of a good high school.

THE FUTURE OF RURAL SCHOOLS.

In this statement of the conditions underlying the work of rural schools a rather hopeful view has been presented, partly because they show a great improvement over conditions which formerly existed, and partly because they indicate a spirit of activity and progress. It must be admitted, however, that in actual work done they are as a rule still inferior to the schools of the cities and large towns. But the success attained in some rural schools warrants the belief that with improved conditions these schools have yet a great work to do.

Besides carrying on the so-called regular studies in a practical and effective way, they may, through lessons in nature study, help the children to have a genuine love of nature and country life. They may be the means of introducing into the home artistic and useful occupations; and they may, as some have done already, do much in manual or industrial work to prepare the pupils to choose and follow efficiently some vocation in life. Indeed, it is not too much to hope that some time in the future the farms themselves will be made more productive than they are, through the agency of proper instruction carried on in the school. By some such means as these life in the country may be made attractive, and the present rush of young people to cities may be stayed.

JOHN T. PRINCE.

APPENDIX B.

REPORT OF G. T. FLETCHER,

AGENT OF THE BOARD.

REPORT.

To the State Board of Education.

My time during the year has been quite largely given to inspection of educational conditions in the country towns, through visitation of schools, correspondence and conference with school officials.

The employment of special superintendents in union districts has made it possible to reach schools more readily and effectively than could be done under the old plan of committee service.

While it requires more time than an agent of the Board has at his disposal to visit every year schools in all of the 104 towns of the counties of Berkshire, Franklin, Hampshire and Hampden, he can, with the superintendent, visit some schools in every one of the 26 superintendency unions in the four counties, and, through acquaintance with the man and his work, become quite well informed of the conditions and needs of the schools of his union.

After a visitation trip of a day or more to half a dozen widely scattered, small rural schools, a meeting of all of the teachers of the district is frequently called, for a conference upon school work and ways and means of improvement. Nearly three-fourths of the towns in my field of work are mainly rural, having small schools often far apart. It is very important that these schools be visited by the superintendent frequently and quite regularly, and as many of them as possible by an agent of the Board occasionally, to note conditions, needs, and to suggest methods of improvement.

IMPROVED CONDITIONS IN RURAL SCHOOLS.

Within the last ten years nearly all of the country schools have made considerable progress in material conditions, buildings, blackboards, furniture and books. The teaching is generally better, showing its value in the work of the pupils. Improvement is mainly due to the larger aid from the State, making special superintendence and higher wages to teachers

possible. There is no valid excuse for poor schools in country towns. The State is just and generous in its policy to co-operate with the people to improve educational advantages. It remains for the towns to will and to do all that is needful and possible to continue and to advance the good work now so well begun. The schools will be what the people demand.

Valuable additions to the course of study have been made in recent years, including physiology, drawing and music. The so-called fundamental branches, reading, spelling, writing, arithmetic, geography, grammar and history, are retained, and most of them better taught than formerly, some of them not so well. A simple, practical treatise upon the best methods of agriculture, horticulture, gardening, dairying, stock-raising, should be in every rural school for study and discussion. A consideration of these topics in an intelligent way, under the direction of a teacher and superintendent interested in the home life of the pupils, the vocation of the people, would be of great value in checking the tendency of many young people to leave the farm for life and occupation in villages and cities.

The problem for superintendents and teachers to solve is, how to make these various studies of the most value to the child. The essentials of each branch should be strongly and persistently emphasized, details of little value being rejected. A healthy development of body and mind, power to think and to do, knowledge that brings the pupils into closer and better relations with active life, moulding character, making for good citizenship, is the highest result the schools can possibly attain. Objects, books, study, teaching, are but means to an end, — the true education of the child. What was most valuable in the old district school should be retained in the new rural school. The classification of pupils, based upon ability and acquirement with reference to branches to be studied, is much to be preferred in small schools, with a wide range of age and proficiency of pupils, to the city graded plan.

BUILDINGS AND GROUNDS.

The schoolhouses should be a credit to the town; many of them, with the out-buildings, are a reproach to the people. Grounds of suitable size and condition should furnish opportunity for out-door exercise. Dr. W. T. Harris, U. S. Commis-

sioner of Education, says: "No modern system of schoolroom calisthenics can equal in value the old-time recesses." Make the schoolhouse and its surroundings attractive. The coming to a town and the remaining in it of desirable families is often determined by the schoolhouse conditions and the educational advantages.

SCHOOL ATTENDANCE.

Nearly all rural schools need the old-time stimulus of a large number of pupils. Interest of teachers and pupils in school work is naturally reduced when there are but a few to take part in it. In nearly every town some children of school age are not in the school, or do not attend regularly. When long distances, bad roads, severe winter weather, detain from school very young children or those who are not robust, provision should be made for schooling for some weeks during the months of July and August.

The number of children in some country towns will be increased in the near future, I think, by the coming of people to make for themselves homes in farming communities. Further consolidation of schools may be necessary for economy and efficiency.

CONSOLIDATION OF SCHOOLS.

Conveyance of children from sparsely settled sections of towns to schools in other districts or to convenient central locations, to reduce the number of small schools, has continued during the year, with some variation in the number of schools closed, and some change of opinion regarding the desirability of consolidation.

The following questions were sent to superintendents of schools in western Massachusetts: —

1. Has there been any consolidation of schools in the towns comprising your superintendency union?
2. Have teachers' wages increased as a result?
3. Has the expense of conveyance of pupils been *more* or *less* than the cost of maintaining the schools *at the time of closing*?
4. Advantages and difficulties of consolidation of schools.

Replies indicate that in nearly 50 of the smaller towns about 75 schools have been closed in recent years, for the purpose of consolidation by the conveyance of children to other schools.

The expense of conveyance has generally been less than the cost of maintaining the schools at the time of closing them. Teachers' wages have been increased in some towns because of fewer and larger schools.

The following advantages are claimed: inspiration of numbers; more interest of teachers and pupils in the work; larger classes; better buildings; more appliances; better teachers; saving of time from travel for visitation of schools by the superintendent, and any special teachers employed.

Some of the disadvantages are: long distances; bad roads, especially in winter; young children are away from home too many hours, often in stormy weather; it is difficult to obtain suitable conveyance, and proper persons to take charge of the same. The occasion for consolidation of schools has arisen because of the great loss of population and property valuation in many towns, or the change of residence of people from the outlying districts to more central parts of the town, leaving the schools very small.

If a school becomes so small in number of pupils that economy and efficiency will be promoted by consolidation with some other school or schools, without great inconvenience or risk to pupils, the plan should receive careful consideration by school committees and parents. Children may be so located in a town as to render the maintenance of a small school necessary, for a time at least. The coming or going of residents may settle the school question later. A country school having from 15 to 30 pupils, located in an intelligent community, seems to me to be almost an ideal place for educating children. I trust our "hill towns" are to regain the population, in numbers at least, of former days, with corresponding increase in the size of the schools.

DISTRIBUTION OF THE INCOME OF THE SCHOOL FUND.

The law granting \$2 a week to teachers of "exceptional ability," approved by the State Board of Education, employed in towns having a valuation not exceeding \$350,000, proved to be of great value to the 53 small towns receiving such aid. This law was repealed upon the passage of the law which distributes the entire annual income of the school fund (instead of

one-half of the income, as heretofore) to the towns having a valuation not exceeding \$2,500,000.

This will give much greater aid to four times as many towns as received benefit under the \$2 a week law. To determine in some measure the results of this distribution of so large a sum of money during the year 1904, the following questions were sent to school superintendents: —

What benefit has the larger amount of money from the income of the State school fund been to the schools of your union the past year?

Have any of the towns raised less money for school purposes because of more State aid?

Following is a condensed statement of the replies given by the union superintendents of western Massachusetts: —

“Better teachers are employed, because of increase of salaries.”
“More books and supplies have been purchased.” “Because of better schools, a larger attendance of pupils has resulted.” “Special teachers of music and drawing have been employed.”

Only three towns are reported as having raised less money for school purposes because of more State aid. Two towns, having only one school each, receive nearly twice as much money from the State as they pay for wages of the teachers, one of them receiving more money from the State than the total expenditure by the town for support of public schools.

While it appears that the towns of western Massachusetts have, with few exceptions, made the usual appropriations for support of public schools, further legislation may be needed to insure such local support of the schools as the State has a right to expect. I find that the school superintendents have used their influence to secure from towns and school committees such action as will make available the largest amount of money possible for securing the best-qualified teachers, and other conditions essential to the improvement of the schools.

SCHOOL SUPERINTENDENCE.

The formation of a superintendency union by Belchertown and Enfield, in June, 1904, completed the union of all towns in

western Massachusetts for the employment of superintendents of schools under the law granting State aid for that purpose. There are now 26 such unions in the four western counties, including 86 towns; 6 unions are composed of 2 towns each, 6 of 3 towns, 13 of 4 towns and 1 of 6 towns. All of the unions excepting one are quite favorably formed as to the number and location of the towns. The Charlemont union of 6 towns should be reconstructed as soon as any better plan can be devised. Two extra towns were admitted because no other place could be found for them. The area and altitude of this union make it impossible for a superintendent to do satisfactory work.

In the hill towns of Berkshire, Franklin and part of Hampshire counties a union of three or four towns, depending upon the number and location of the schools, often requires long and hard drives from ten to twenty miles in a day by the superintendent to visit a few schools. He is expected to visit every school in his union once in two or three weeks. This is much oftener than the superintendents of most of the large towns and cities see their schools, many of which are within easy walking distance or on electric car lines. These visits to country schools by the best superintendents mean much for good in many ways to teachers and pupils. A cheering, helpful word, a suggestion as to ways and means of teaching and managing schools, a talk to children occasionally, with teachers frequently, upon topics of interest, may be exceedingly timely and profitable to the school. The superintendent must keep in close touch with methods of school work, and especially with results pertaining to the school as a whole and to the individual pupil.

The well-educated, trained, experienced teacher, who gives evidence of judgment and tact, should be allowed large liberty to use to the best advantage her personality and ability. The superintendent should, in time, have a speaking acquaintance with as many citizens as he may be able to meet in his round of duties or in social and church attendance. He should have a closer acquaintance with the parents of the school children. It is his duty and privilege to bring the home and the school into the most happy and helpful relations.

STATUS OF THE SUPERINTENDENT.

School superintendence being the policy of the State, the relation of the superintendent to the public school system as to authority and service should be more clearly defined. Intelligent and tactful superintendents have determined for themselves a proper relation to the public, to the school officials, and to teachers and pupils.

It has been the Massachusetts way, educationally, to wait for public opinion to show the "fitness of things," and then to take legal action to "fix things." Has not that time arrived?

SPECIAL WORK OF THE AGENT.

During the past six months I have, by request of the secretary of the Board of Education, given special attention to the investigation of the supervising conditions in 40 unions, 17 of them outside of my field of labor. In this inspection I have been most cordially received by the superintendents. That a great and good work in skilled oversight of schools has been accomplished through co-operation of towns and State is evident. The lines of progress have been so fully delineated in the annual reports of the Board that they need not be repeated here.

With rare exceptions, I think the superintendents have tried to do their duty; many of them have succeeded remarkably well. Some, because of lack of adaptation to the work, scholarship, experience in teaching and supervising, have not accomplished the work expected and needed. The committees in general have seemed to be in sympathy with the new official and his work, though not fully realizing his most helpful relation to them and to the schools. Some members of committees have antagonized the superintendent and his work, thus causing an inharmonious and hurtful relation between the superintendent and teachers. Rarely has this feeling dominated the joint committee so as to pervade a superintendency union. In the main, success or failure has been largely due to the superintendent.

Important advantages noted have been along the line of improved material conditions, more careful selection and direc-

tion of teachers, and signs of better work in the schools. It is evident that the State and town should require persons of special fitness for this most important office. The superintendent should be familiar with the best educational material and methods. He should bring the teachers of his union, in purpose, spirit and result, into lines of true advancement. A weakness of supervision is in lack of preparation, plan and persistence, needed to insure steady progress in the schools. Many suggestions and requirements made are not enforced. A general course of study, indicating the work for a year and longer, needs to be supplemented by directions specifying amounts to be accomplished in weeks or months.

With inexperienced teachers some details of work must be mentioned, subjects outlined, topics specified. The superintendent must be so in touch with the work of all the schools that the best possible results may be anticipated and secured. The best teachers should be allowed large liberty in methods of teaching.

SCHOOL BUILDINGS IN LARGE TOWNS AND CITIES.

Greenfield, Easthampton, Northampton, Palmer and Springfield have erected new and quite expensive school buildings. Much attention has been given to heating, lighting, ventilation and sanitary conditions. The general tendency is to make the educational conditions, in a material point of view, conducive to the health and comfort of the children. There is still a need of improvement in the use of means for furnishing at all times a sufficient quantity of pure air, unmixed with that which has been vitiated by the respiration, clothing or bodily condition of pupils. In schoolrooms having the most approved methods of ventilation it is necessary to thoroughly air rooms and halls occasionally by opening windows and doors.

COURSES OF STUDIES.

The tendency to formulate more and more elaborate courses of study seems to have reached a period of limitation.

The demand of the times for a more "practical education" is not new, and the scope of the requirement is not yet well defined; but that education should more fully meet the physi-

cal, intellectual and moral needs of children, and better prepare them for the duties of life, its changed conditions and new responsibilities, is evident. Possibly all of the old and all of the new branches included in modern courses of study have considerable educational value; but that many of them should be pruned of details of little worth, or curtailed in their extension, is very evident. Fewer topics, more thoroughly considered, and better understood, would meet educational needs much more fully than is done under the present crowded curriculum.

Too large a portion of the time of young children is spent in schoolrooms, under conditions not conducive to health, in the acquisition of knowledge. More time about home, breathing out-door air, engaging in play and simple, light forms of work, a healthy exercise of body and mind, is needed.

Material and methods used in primary schools are, in the main, excellent; but some of them, especially those pertaining to number work, are not well adapted to the mental condition of young children. Development of ability to do things and to express thought in good language is exceedingly valuable. In upper-grade classes more time is given to arithmetic than is profitable, much less to reading and language expression.

TEACHERS' INSTITUTES.

On account of the time required for special examination of the field of superintendence, only six teachers' institutes were held the past season, in the western section of the State. These were held in Bernardston, Buckland, Chester, Charlemont, West Stockbridge and Dalton. There was a good attendance of teachers from 44 towns. The secretary and agents of the Board of Education, normal school teachers, superintendents of schools and teachers of special subjects, gave lessons and lectures interesting and instructive.

TEACHERS' MEETINGS.

These are held by superintendents in large towns and cities, generally by grades, for consideration of special lines of work. The union superintendent holds meetings for the teachers of one town, or for the teachers of his union, as often as time and conditions of travel will allow.

After an inspection of schools by the agent, a meeting of teachers is generally held, for conference upon the condition and needs of the schools.

THE TEACHING FORCE.

There has been a small increase in the number of normal graduates employed during the past year; a larger increase in the number of teachers who have attended a normal school, but have not yet completed the course. More good teachers than usual have been employed, the result of their experience under superintendence being in evidence in their work. Every year a larger number of teachers than ever before have been taken from the rural schools to positions in towns and cities paying higher salaries. It is fortunate that the smaller towns can have teachers worthy of higher salaries, even if retaining them for a year only; but it is greatly to be desired that the best teachers remain in country towns for longer terms of service. The smaller expense of living may equal the gain in salary by an exchange of position, while the experience, the duty, the privileges, are advantages not to be measured by money.

It is greatly to the credit of the union superintendent that he is able to secure and to retain, for a time, such good teachers; but it adds to his labors that he is often obliged to find new teachers for some or all of his schools every year, and frequently upon very short notice. A possible further increase of wages may enable the country towns to retain good teachers for longer service.

THE NORMAL SCHOOLS.

I have visited during the year the Bridgewater, Framingham, North Adams, Westfield and Worcester normal schools.

The increased attendance, the work being done and the growing demand for graduates to teach, are promising indications of educational progress in the schools and in the communities. The State, in contributing yearly so large a sum of money for the support of these schools, for superintendence in union districts, and in distributing, to towns whose valuation does not exceed \$2,500,000, the annual income of the school fund, has a right to expect, and a duty to demand, great improvement in the public schools through a hearty appreciation of what has

been done, and an earnest co-operation by the people to make the schools most valuable.

TRUANCY.

Berkshire County truants are sent to the Hampden truant school at Springfield, but no suitable provision has been made for the truants of Franklin and Hampshire counties.

Parents and school officials are cognizant of the fact that truancy exists to some extent in many towns. The indifference of some parents to the education of their children, poverty in the homes, lack of parental authority, and failure to enforce the law by school officials, are causes of truancy. It seems to me that there should be county truant officers, who would perform their duties without being influenced, as the local authorities sometimes are, by fear or favor. If the school buildings and grounds at Springfield can be enlarged and equipped to meet the truancy needs of the four western counties, it might be the best solution of the existing problem.

SUBSTANTIAL PROGRESS.

Progress is indicated by some extension of the school year, completion of superintendence, employment of a larger number of efficient teachers, better attendance of pupils, and consequent improvement of the schools.

G. T. FLETCHER.



APPENDIX C.

REPORT OF J. W. MACDONALD,
AGENT OF THE BOARD.

REPORT.

To the State Board of Education.

During the year just ended I have visited 112 high schools, with about 450 teachers, and also grammar and primary schools in 56 towns. In connection with these visits I have made 92 written reports to the secretary of the Board, and 8 special reports to superintendents and school committees. I have also held 5 teachers' institutes, and spoken at institutes, conventions, teachers' meetings and other educational gatherings 34 times,⁴ and have written about 560 official letters.

Of the high schools visited 37 were applicants for the State grant of \$300, of which number 35 were approved. This number will be increased by three or four the coming year.

In the majority of cases the work and condition of these high schools have greatly improved under the working of the law of 1902, and the stimulating influence of superintendents. Order and application to work have largely taken the place of disorder and dawdling; and with these first steps in efficiency secured, we may, I think, look for continued improvement.

As to the policy of maintaining a local high school, as compared with that of providing this instruction in outside schools, the prevailing sentiment in towns that have an option in this respect is in favor of the local school, except where the expense, as compared with the number of pupils, would be unreasonably great, or where an outside school is very easily accessible. The other view is usually held by those who have no children, or who have children whom they purpose to send to college, and whom they prefer to have fitted in a school that holds the privilege of certificating its graduates along.

There is this also to be said in favor of the strong outside high school: that it furnishes broader options, better facilities for instruction in most subjects, and older, more experienced,

and, as a rule, more skilful teachers. The bright country boys and girls that come to it with a purpose seem to catch from the new environments a spirit of work that soon puts them among its best scholars.

On the other hand, more pupils will attend a local high school than will go to an outside one, whatever advantages the latter may offer; and, provided the instruction of the local school can be of a kind to meet the needs of its pupils, and can be kept up to a reasonable degree of efficiency, this is a strong argument for its maintenance. How the number of high school pupils is thus affected will be seen by the statistics presented below, mostly taken from the last report of the Board. The towns of the State having a population of 3,500 or less (three or four larger) were divided into two classes: (*a*) those that maintained local high schools with four-year courses; and (*b*) those that sent their pupils to outside high schools. In the table below, in parallel columns, I have shown by counties the town in each of these classes that furnished the highest, and the one that furnished the lowest, per cent. of high school pupils to population, and also the average of them all for the county. Suffolk and Nantucket counties, for obvious reasons, are omitted; and also in some of the counties a few towns that pursue a middle policy, — that is, maintain a local school for the first year or two of high school work.

The very high or low percentage shown by some towns is in most instances due to temporary causes, and another year would show figures nearer to the average. It should be noted, also, that a much larger proportion of the towns which maintain their own high schools than of the others are manufacturing towns, that have a considerable part of their populations drawn from nationalities that as a rule furnish few high school pupils. Ludlow and Hardwick are examples. Each high school town, too, is credited with only its own pupils; all outside pupils attending the school are credited to their own towns.

Of the columns of figures, the first gives population; the second, the number of high school pupils; the third, the per cent. the number of high school pupils is to the population; and the fourth, the per cent. this same number is to the whole number of pupils in the town or combination of towns.

TOWNS THAT MAINTAIN HIGH SCHOOLS.	Population.	High school pupils.	Per cent. of high school pupils to population.	Per cent. of high school pupils to whole num- ber of pupils.	TOWNS THAT DO NOT MAINTAIN HIGH SCHOOLS.	Population.	High school pupils.	Per cent. of high school pupils to population.	Per cent. of high school pupils to whole num- ber of pupils.
<i>Barnstable Co.</i>					<i>Barnstable Co.</i>				
Wellfleet, . . .	985	35	3.5	24.0	Eastham, . . .	502	13	2.6	16.0
Sandwich, . . .	1,448	23	1.6	10.2	Truro, . . .	796	5	.3	3.0
9 towns, . . .	14,143	336	2.4	14.2	3 towns, . . .	1,601	18	1.1	5.9
<i>Berkshire Co.</i>					<i>Berkshire Co.</i>				
Stockbridge, . . .	2,081	75	3.6	17.0	Clarksburg, . . .	943	13	1.4	5.0
Sheffield, . . .	1,804	24	1.4	6.6	Sandisfield, . . .	661	0	-	-
4 towns, . . .	10,495	244	2.3	12.8	20 towns, . . .	11,557	109	.9	4.3
<i>Bristol Co.</i>					<i>Bristol Co.</i>				
Mansfield, . . .	4,006	98	2.4	12.1	Somerset, . . .	2,241	49	2.2	11.7
Fairhaven, . . .	3,567	70	2.0	10.4	Seekonk, . . .	1,673	5	.3	1.7
2 towns, . . .	7,573	168	2.3	11.5	10 towns, . . .	16,131	156	1.0	5.5
<i>Dukes Co.</i>					<i>Dukes Co.</i>				
Edgartown, . . .	1,209	36	3.0	21.0	West Tisbury, . . .	442	5	1.1	7.0
Tisbury, . . .	1,149	24	2.1	14.5	Chilmark, . . .	324	0	-	-
3 towns, . . .	3,458	85	2.5	15.8	3 towns, . . .	939	5	.6	3.8
<i>Essex Co.</i>					<i>Essex Co.</i>				
Merrimac, . . .	2,131	81	3.8	19.6	Hamilton, . . .	1,614	50	3.1	19.2
Nahant, . . .	1,152	12	1.0	9.3	Salisbury, . . .	1,558	19	1.2	6.3
8 towns, . . .	14,332	349	2.4	14.2	7 towns, . . .	8,738	147	1.7	10.8
<i>Franklin Co.</i>					<i>Franklin Co.</i>				
New Salem, . . .	807	21	2.9	13.0	Erving, . . .	973	19	2.0	9.4
Ashfield, . . .	955	19	2.0	10.3	Warwick, . . .	619	1	.2	1.0
6 towns, . . .	7,489	159	2.1	11.8	15 towns, . . .	11,441	151	1.3	7.6
<i>Hampden Co.</i>					<i>Hampden Co.</i>				
Monson, . . .	3,402	106	3.1	16.1	E. Longmeadow, . . .	1,187	17	1.4	4.8
Ludlow, . . .	3,536	24	.7	4.3	Wales, . . .	773	0	-	-
5 towns, . . .	10,924	207	2.0	10.3	12 towns, . . .	10,525	96	.9	4.5
<i>Hampshire Co.</i>					<i>Hampshire Co.</i>				
Belchertown, . . .	2,292	71	3.1	13.8	Southampton, . . .	1,012	19	1.8	11.3
Hadley, . . .	3,142	28	1.6	10.7	Worthington, . . .	675	0	-	-
6 towns, . . .	9,743	230	2.4	12.8	12 towns, . . .	6,545	75	1.1	5.4
<i>Middlesex Co.</i>					<i>Middlesex Co.</i>				
Groton, . . .	2,052	74	3.6	17.0	North Reading, . . .	1,035	26	2.4	17.0
Maynard, . . .	3,142	40	1.3	8.6	Dunstable, . . .	427	3	.7	4.1
18 towns, . . .	37,350	862	2.4	12.0	10 towns, . . .	10,892	163	1.5	7.7
<i>Norfolk Co.</i>					<i>Norfolk Co.</i>				
Holbrook, . . .	2,229	62	2.8	12.4	Westwood, . . .	1,112	20	1.8	11.4
Millis, . . .	1,053	11	1.0	4.3	Bellingham, . . .	1,682	20	1.2	6.3
9 towns, . . .	22,161	514	2.3	11.8	2 towns, . . .	3,794	40	1.0	8.1
<i>Plymouth Co.</i>					<i>Plymouth Co.</i>				
Kingston, . . .	1,955	75	3.8	18.0	Hanson, . . .	1,455	25	1.7	11.0
Carver, . . .	1,104	19	1.7	9.3	Halifax, . . .	522	2	.5	2.5
12 towns, . . .	23,257	595	2.6	14.4	6 towns, . . .	6,112	88	1.4	10.0
<i>Worcester Co.</i>					<i>Worcester Co.</i>				
Oxford, . . .	2,677	89	3.3	16.0	Berlin, . . .	1,003	19	1.9	13.7
Hardwick, . . .	3,203	21	.7	5.9	Boylston, . . .	1,364	5	.4	3.3
25 towns, . . .	53,842	1,031	1.9	11.1	13 towns, . . .	13,943	106	.8	4.9
<i>The State.</i>					<i>The State.</i>				
107 towns, . . .	214,767	4,795	2.3	12.3	111 towns, . . .	101,479	1,137	1.1	6.0

The same towns for the year ending June, 1904, show a per cent. of high school pupils to entire number of pupils of 12.2 and 6.6 for the respective classes.

Making allowance for variations from year to year, it will appear that only about three fifths as many pupils will go to an outside high school as would attend a local school. For this there are several reasons, as one learns by inquiring of the people of these towns. A few of these may be of interest.

First, there is the expense of travelling, which for most of the families of these towns is quite a burden. Some of the richer towns remove this difficulty by paying the cost of transportation, and more perhaps might do so.

Second, there is a loss of time and of vitality where pupils have to travel long distances, and a loss of their help at home, where it is often greatly needed, and needed not only to aid their parents but also for their own good; for what better training can young people get than in learning to lend a hand to help in the work of the home; and what superiority of advantages in the way of purely intellectual education can the very best high school furnish that will compensate for the lack of this training? It will be kept in mind that I am speaking of communities made up almost wholly of families dependent on the farm or the mill or some other kind of laborious industry for their maintenance, where even the morning and evening assistance that boys and girls of high school age can render may be a needed relief to their hard-working parents, and, as I have said, a benefit to themselves. A little helpful manual labor interspersing their study of Latin and geometry will be a tonic. The more I see in adults the consequences of early home conditions and training, the more I feel that young people are unfortunate who, outside of the hours required for their school work, have nothing to occupy their time and attention but amusements; who, at the age when impressions and habits are rapidly forming, have no share in the serious work of family maintenance, whether their exemption is due to wealth, or to the unwisdom of parents (as it often is) or to the exactions of purely intellectual schooling.

Third, I find that thoughtful parents are reluctant to have their children of high school age, especially their girls (I think it is just as dangerous for boys), travelling back and forth in the cars, where the influences do not always make for refinement and modesty; but are even more reluctant to send

them to board for the week in a city or large town, unless they are under the care of some one who has in them more than a boarding-house keeper's interest.

I find, too, that the matter of dress has quite a deterrent effect on country boys and girls, whose only opportunity to attend a high school is in a city or large town, where the prevailing tone in this regard is more critical than at home. I mention this only to show how trivial a reason may avail to keep a boy or girl from going to a high school, when co-operating with a natural inertia against going from home.

A striking illustration of the working of the influences I have mentioned is shown by the towns of Shelburne, Buckland and Colrain. The high school for these towns is Arms Academy, at Shelburne Falls, now a part of the Shelburne public school system, though Buckland and Colrain usually have one or two pupils each at Ashfield or Greenfield. The pupils of Buckland are but little less conveniently located with reference to the academy than those of Shelburne itself, and those of Colrain are quite conveniently accommodated by electric, though less favorably situated than either of the other two. The per cent. of high school pupils to the whole number of pupils in each of these towns for the last three years is as follows: —

	1902-03.	1903-04.	1904-05.
Shelburne,	14.2	15.4	15.7
Buckland,	10.3	12.2	13.4
Colrain,	6.5	7.6	9.4

Another argument that one often hears in favor of local schools, as against sending pupils to outside schools to be educated, — though I do not think it has much to do with decreasing the number that go, — is to the effect that it is a step towards town suicide, as the young people who once get a taste of the more exciting social attractions that a large town furnishes are never again content to return and remain in the place of their birth; that in such cases it is not alone those

who find elsewhere a better field for their talents that leave the home town, for those would be quite sure to leave anyway, but also those whose welfare and eventual happiness would be better served at home. It must be admitted that there appears to be a good deal of truth in this argument.

It is not by any means to be inferred from the above presentation that it would be well to establish a high school in every town, however small. This would be an expensive policy, — as extreme and unwise as the opposite policy of having all towns with a population of less, say, than 3,500, patronize outside high schools. There is a middle and better policy, and it is practically the one that is now followed in this State : it is to maintain a high school in towns, no matter how small, provided a sufficient number of pupils attend to make it economical. These schools may have a four years' course where the teaching force permits it, or courses for a shorter number of years, supplemented in outside schools.

It is suggestive of public sentiment in this matter that 35 or 36 towns in the State, not obliged to maintain local high schools, are doing so ; though, if they closed them and sent their pupils elsewhere, the State would wholly reimburse them for cost of tuition ; and 20 others which the State would reimburse to the extent of one half.

The facts presented would seem to show that this middle policy is the best, provided the instruction in the small high school can be made reasonably efficient. This is the great problem ; and yet it seems to me that the difficulties it presents ought not to be insurmountable.

The low salaries paid to teachers in most of these small high schools are inducements only to beginners, and the available college graduates, the class from which it is the usage to select these teachers, are as a rule surprisingly deficient in qualifications for the work. It is easy to account for a part of this deficiency, — they are entirely without experience. In this respect they are at a great disadvantage as compared with college graduates of thirty or more years ago, who often earned a considerable part of their college expenses by teaching during the then long winter vacation, gaining thereby a practical and varied insight into school management and methods of

teaching. This source of experience no longer exists, for colleges no longer have the old-time winter vacation; and, if they did, there are few of the old-style winter schools seeking teachers. It is possible that, if the summer vacation school becomes more common, it may furnish something like the old opportunity to a limited number of college students who are looking to teaching as their life work; but there is little prospect of a great amount of immediate aid from this movement.

The lack of experience, however, does not account for all the weakness in the teaching of young college graduates. They show generally an almost complete enslavement to a book as the all-in-all in education; a subserviency to its plan that is surprising: a lack of individuality in thought and judgment, and of resource in making information practical, that is even more surprising. A first-year class in Latin, in its twenty-second week, under a teacher who prided herself on her classical record, was asked to put into Latin this simple statement: "The town will be defended by the citizens." The pupils had had all the vocabulary, and had given much time to all the forms and principles needed for the translation; yet it took the whole class over ten minutes to do it, and the mistakes made in the process averaged about three to a word. The strange thing about this was not the stupidity of the class (this was the teacher's explanation) but that the teacher, a woman college educated and trained, then in her second year of service, did not have enough originality and acuteness to inquire into the cause of the poor results and question her methods, and enough resource to adapt or supplement the text-book so as to get more rapid and more definite work. Yet this is only a typical case, that could be paralleled over and over again.

One other: a class in physics had been laboring for several lessons on "the universal law of gravitation," and the weight of bodies at different distances above and below the surface of the earth. In reply to the question, "Have any of you ever made any use of the principle stated in that law, or do you know of any one who has?" the answer was unanimously in the negative. The pupils were asked to "think about it," but not until the suggestion was made that none of them could have ever bought a pound of tea or candy, did a boy raise his hand

and venture the explanation that "we use gravity when we weigh things." This was the first hint that the class received that the "universal law" of gravitation had any application to human affairs, or was anything but a string of words. The teacher, a man then in his third year of teaching, explained these defects by saying he had no suitable apparatus. Suitable apparatus! Why, the world is full of it, — so full that the apparatus of the laboratory is often in the way. His excuse only emphasized his astonishing lack of resource.

It seems strange, I say, that young men and women that consider themselves educated are so dependent and resourceless. One is at a loss to account for it. I can only say that in most of the cases about which I made some inquiry I found that the teachers during their earlier years had been exempt from the industrial training of which I have previously spoken. All their education, barring what they may have gotten from amusements, was purely intellectual and from books.

One or two with whom I have talked about the condition described above have attributed it in part to the lecture and note-taking practice that prevails in colleges. In this (I give their general explanation) the principal training is the habit of passive and unquestioning acceptance. In a recitation, a student, if he wishes, may question and raise a doubt; but to do this when a professor is lecturing would be thought impolite and presumptive. The student feels that he must listen and accept. Four years of this obliterates the remembrance of earlier methods, and as a teacher the student does not know how to conduct a recitation so as to arouse the pupils' interest and self-activity; in other words, he does not know how to question.

However this may be, it is evident that there is a great need of better-equipped, better-trained and more resourceful teachers in these small high schools, and in fact elsewhere. Such teachers might be supplied by the establishment of a normal course of one year for college graduates. In such a course they could not only be instructed in the principles of pedagogy, but they could also be trained to think for themselves and to do things, and they could be emancipated from intellectual bondage. They should also be shown how to econo-

mize time, and to make every minute count if they are to work successfully in our small high schools. The country high school cannot be run on the same plan as the city school, and does not need to be, provided the teacher has flexibility to adapt himself to his conditions. A normal course that would plan for the latter would in some respects disqualify rather than qualify for the former. For example, the teacher of the small high school needs the greater breadth and versatility, and the greater skill in stimulating pupils to help themselves.

The most available means, however, of improving the instruction of the small high school is efficient supervision. I am only stating what is self-evident when I say that the superintendent should be able to so direct the instruction that most of the defects I have pointed out will be obviated, provided he will adopt a course of study that will be suited both to the conditions of the school and the needs of the pupils, and can secure teachers of fair ability.

As to the course of study, I will say no more than that I have discussed this matter somewhat in full in the sixty-sixth report of the Board, pages 280-301, and that I believe the plan therein submitted offers a practicable solution of some of the main difficulties.

As to more capable teachers, it is largely a matter of salary, and the question is: Can the small towns maintaining their own high schools pay sufficient salaries to attract and hold a better average of teaching talent? In most cases I think not, unless the State is a little more liberal in aiding them. I think, however, it can be shown that the State can well afford to be so, even in the interest of economy.

To turn for a moment to the present law, the State now pays to each town of less than 500 families (with an exception to be mentioned later), that maintains its own high school, an annual grant of \$300; the others it reimburses in whole or in part for the cost of tuition incurred in sending their pupils to outside schools. For the year ending June, 1903, the State paid to the 28 of these towns maintaining their own high schools, with an attendance of 917 pupils, \$8,400, or an average of \$9.16 per pupil; to the others, to reimburse for the tuition of 996 pupils, it paid \$31,888, or an average of \$32.02 per pupil.

For the year ending June, 1904, the 34 towns maintaining their schools, with a membership of 1,177 pupils, received from the State \$10,200, or an average of \$8.67 per pupil; and the others received \$35,402.88 for 1,099 pupils, or \$32.21 per pupil.

To present it in another way, the towns below, maintaining their own high schools, received from the State \$300 each, or \$8,400 in all. The table shows what each town would have cost the State for reimbursement of tuition if the schools had been closed, and only *three fifths* of the pupils had attended the nearest high schools.

Ashby,	\$540	Millis,	\$480
Ashland,	450	New Salem,	450
Avon,	810	Northborough,	500
Bernardston,	360	Norwell,	440
Bourne,	525	Orleans,	945
Carver,	240	Sheffield,	400
Chester,	650	Shelburne,	410
Conway,	640	Shrewsbury,	720
Essex,	500	Southborough,	700
Hadley,	405	Sudbury,	312
Huntington,	800	Wayland,	612
Littleton,	500	Wellfleet,	440
Ludlow,	560	West Newbury,	500
Lunenburg,	675	Wilmington,	540

The above amounts to \$15,104; that is, it would have cost the State \$6,704 more for *three fifths* the number of pupils, to say nothing of the extra cost on parents of travelling expenses, which must have been from \$20,000 to \$25,000 more.

It has been for a long time the policy of the State to make the high school accessible to every boy and girl that may wish to enter it. It appears, however, that our present law gives more liberally to the plan that puts it within reach of the smaller number, than to the one that puts it within reach of the larger number. This could not have been intended unless it was thought that by the former plan the pupils would have the advantage of a better high school. In many cases this is so, but not in all. For example, the State contribution to the Orleans high school amounts to about \$6.50 per pupil; at the same time, it pays \$32 per pupil for the tuition of outside

scholars who come to the same school. This illustration might be repeated many times over in other cases.

It would seem, then, that the State, in the interest of economy, can well afford to increase its aid to these towns maintaining their own high schools, without surpassing or even equaling its liberality to the others. I would therefore respectfully recommend that the present grant of \$300 be increased to \$500, and that one half the amount be awarded to the town that maintains a high school for the first two years of the course.

The present law justly excludes from State help all towns having a valuation per pupil above the average of the State. There are other towns, however, whose high schools are largely supported by incomes from permanent funds, that give them the same advantage that the higher valuation does. For example, taking the amount raised by taxation for the support of public schools in any place in the State, it can be shown that the part of it that goes to the support of the high school is the product of a tax rate of less than one dollar on a thousand. The actual rate is probably much less than this, but calling it this for our present purpose, it is evident that an income of say \$500 in addition to the amount available from taxes for its support places a school in the same position that an increase of \$500,000 in the town's valuation would. But some of these schools have an income from funds of two, three, four or more times \$500. These all at present receive the \$300 grant, but some of them do not need it. It would, I think, be well to give only one half of the grant to schools having an independent income of from \$500 to \$1,000, and to withhold it altogether from those having an independent income above \$1,000.

I may also say, in closing, that there are one or two places in the State where it would be economy, both for the State and for parents, to establish a State high school to educate the pupils for whom the State is now paying tuition.

Respectfully submitted,

J. W. MACDONALD.

APPENDIX D.

REPORT OF WALTER SARGENT,
AGENT OF THE BOARD,
FOR THE
PROMOTION OF INDUSTRIAL DRAWING.

REPORT.

To the Board of Education.

I submit herewith the twenty-sixth annual report of the agent for the promotion of industrial drawing.

PRESENT STATUS OF THE SUBJECT.

In most cities and towns of the State industrial drawing has its proportionate allotment of time in the school curriculum, and money is provided for instruction and materials. The number of supervisors has increased, until now about 97 per cent. of the children in the Commonwealth have the benefit of instruction by special teachers of drawing. In several instances small towns have formed districts and employed a district supervisor; a plan which has brought excellent results at small expense to individual towns.

PRESENT CONDITION OF INSTRUCTION.

A careful investigation of courses and methods now employed has shown conditions that in the main indicate progress. In a few places the problem of right instruction in this department appears to be approximately solved. However, certain aspects of the work which are very general call for consideration as to their value and appropriateness:—

1. The relation of industrial drawing, as now taught, to present requirements of industrial, commercial and social conditions.

2. The variety of subjects offered for consideration, sometimes apparently at the expense of thoroughness in any one.

3. The relation of the arts to the school course as a whole.

Industrial drawing appears in school in two phases:—

- I. Special instruction, *i.e.*, the course.

- II. Employment of the arts as called for by the conditions of school and home life.

These are complementary. Neither is sufficient, without the other, to accomplish the best results. They must be considered

in the light of their reciprocal action. Especially is there need of considering what is due to each from the other.

This report purposes to consider: —

I. Courses in drawing.

(a) The essentials of subject-matter.

(b) The most effective order and method of presentation.

II. The relation of the arts to the school work as a whole, and to industrial and social conditions.

It deals only with drawing in grades below the high school.

I. COURSES IN DRAWING.

Early in the year a circular was sent to instructors in drawing in the State normal schools, to supervisors of drawing, and to superintendents of schools, throughout the State. Concerning various topics generally considered under the head of industrial drawing, the following questions were asked: —

At what age best begun?

During what years of most value?

Relative value on a scale of 5? 5 = highest value.

An approximate average of the replies, which showed a remarkable agreement regarding most of the topics, is presented in the accompanying table: —

	At what age best begun.	During what years of most value.	Relative value on scale of 5. 5 = highest value.
Free-hand illustration of school work,	5	All.	4.5
Perspective principles,	10-12	All subsequent years.	3.4
Accurate pencil drawing as record of observation and as scientific data.	12-14	All subsequent years.	4.5
Pose drawing,	5 and 14	High school.	2.5
Animal drawing from life,	5	5-8	2.5
Study and drawing of type forms,	Miscellaneous replies.	-	3.0
Clay modeling,	5 and 13	5-8 and 13-17	2.0
Copying from the flat,	All ages.	All ages.	2.0
Free-hand paper cutting,	5	5-8	3.5
Accurate instrumental drawing of geometric problems.	12-13	High school.	4.5
Development of surface,	10-12	High school.	4.0
Orthographic projection,	12-14	High school.	3.0
Historic ornament,	12-14	High school.	3.0
Manipulation of spots with tracing paper,	11-12	All subsequent years.	4.5

Many helpful suggestions were offered by those to whom the circulars were sent. In these the value of teaching drawing as a common and convenient means of expression was emphasized.

This is expressed in the following quotation from one reply : —

It seems to me that we sometimes lose sight of the importance of teaching drawing as a means of expression; that it should be taught for precisely the same reasons and in much the same way that we teach English. It should be made a means of expressing thought clearly. That is drawing. The expression of the higher and finer sentiments is art. The former corresponds to the grammar and language work in the lower grades; the latter is not unlike the broader study of literature. Both lines of work are essential, but I feel that it is a mistake . . . if we fail to place the emphasis upon the former. It seems to me that we should send out pupils who are able to express their thoughts readily through free-hand sketches, . . . and through working drawings.

(a) *The Essentials of Subject-matter.* — Drawing offers so many interesting and truly desirable topics for teaching that there is a danger, seldom avoided, of undertaking a variety of work that is out of proportion to the time allotted, and more than can be accomplished with permanently valuable results.

The spirit which prompts this elaboration is undoubtedly good, being a desire to bring all the advantages of the arts within reach of the children. In practical working, however, it is doubtful if this method most effectually attains the desired purpose. It is a question whether, even in the realm of purely æsthetic appreciation, not to mention the more accessible fields of industrial drawing, more is not gained by a fairly thorough mastery of a few fundamentals.

When these are assimilated so the pupil can use them to meet the needs at hand, he has the necessary foundation on which to base further progress.

What should be regarded as the essentials of a course in drawing in public schools?

In my report for 1903 a statement was made of certain broad aims for a public school course, and the reasons for regarding these aims as fundamental. Restated for convenient reference, in still more general terms, the commonly accepted purpose of drawing in public schools is to give : —

1. Power to sketch any simple object from nature or from imagination, with a fairly correct portrayal of its characteristics and proportions.

2. Power to read and make simple working drawings and diagrams, including a knowledge of the elements of orthographic projection, and the use of such common drawing instruments as ruler, compass, and drawing board, with T square and triangles.

3. A sense of good design, as embodied in construction, decoration and pictorial composition. That good taste which comes from familiarity with excellent examples, from making designs, and from much interested choosing between things better and worse.

4. An acquaintance with, and some appreciation of, good examples of drawing, painting, architecture and sculpture.

Whatever the aims chosen, it is not sufficient merely to preface a course with a statement of them. Their controlling influence should be evident throughout. Many courses are introduced by a statement of exceptionally high aims, but fail to embody them. Some courses also, under a considerable show of precision as to what shall be drawn, conceal a fatal vagueness as to any purpose in the drawing. Such courses do not insure from grade teachers the enthusiasm and co-operation which are necessary to any degree of practical success.

Separate lessons may deal with excellent subject-matter, but, unless illuminated by the month's or year's work as a whole, may lose entirely their significance. Like words in a sentence, they must be "bathed in the meaning of the whole." This modifies the accent, tone and inflection of each.

(b) *Order and Method of Presentation.* — In addition to an evident purpose, it is necessary that a course be arranged with a clear idea of the place of each grade's work in accomplishing that end.

It is a waste of time and effort to undertake in primary grades, even though successfully, what can be accomplished with half the time and effort and twice the permanency of results two or three years later. It is equally unfortunate if pupils in upper grades are still dawdling over what should have been done years before. Although one grade of school

life merges into the next with no sharp division, still, certain characteristic ways of seeing and expressing seem to distinguish certain periods, and later give way to or are supplemented by others.

These characteristic periods in the elementary grades may be roughly indicated as follows: primary, 6 to 8 years of age; intermediate, 9 to 11 years of age; grammar, 12 to 14 years of age.

Some generalizations regarding appropriate work for each period may be founded on these divisions. They appear to be fairly trustworthy, being based on careful examinations of the work of several hundred schools in this State, and compared with the work and the reports of investigations in other places.

With the hope that these generalizations may aid towards a better grading of drawing courses, they will be considered under four headings, suggested by the proposed aims for a course:—

1. *The power to draw any simple object from nature or from memory.*

Primary grades: In primary grades children draw spontaneously, with great readiness and confidence; a manner which disappears later, if not developed. Also they draw almost wholly from imagination. Passy describes a small child's drawing as follows:—

He does not hesitate, but seizes his pencil and draws rapidly in an automatic manner. It is impossible to make him look at his model with any attention. If any one commands him to look at it, he hurriedly casts upon it a distracted or disdainful glance, and continues, without concerning himself with that which he sees. The moment he has finished, he shows it to you with a triumphant air.*

The image of the thing children wish to draw is in their minds, and they express it often with amazing vigor and meaning. Facts of appearance are frequently disregarded, but the characteristics which impressed the child most strongly are always shown. To little children drawing is a hieroglyphic

* Quoted by Mr. Frederick Burke, president of the State Normal School, San Francisco, Cal., in an article entitled "The Genetic v. the Logical Order in Drawing," in the Pedagogical Seminary for 1902, page 309.

language, — a story in lines. Appearances and diagrams are often curiously mixed, but in the result there is something to suggest each object which the small draughtsman had in mind, and he can give an explanation of every mark.

There are successful methods of developing these crude primary sketches into fairly creditable drawings. A child, by comparing his successive drawings with the object, or with pictures or with drawings made by his fellows, rapidly gains in correctness of graphic expression.

During the first year or two of school life the acquisition which is of greatest advantage to the next stage of the work is the facility which a child gains from much drawing in his own way, with little criticism or direction by the teacher. He needs continual use of this primitive picture language in describing things connected with home, out-of-door and school life.

Thus expression by drawing becomes a habit before the age of self-consciousness and hesitation is reached. The early results may not be artistic, but the nerves become good conductors, capable of transmitting drawing impulses.

When a right-handed person takes a pencil in his left hand and attempts to write, his difficulty is not because of a lack of knowledge of penmanship, but because the nerves leading to that hand have not become conductors of such impulses, and the muscles receive no encouragement from memories of similar actions previously performed. Many children reach the grammar grades with numerous ideas regarding drawing, but left-handed in both hands, so far as facility is concerned. Later practice cannot fully repair this lack of early training.

In securing this fearless facility in drawing, which is the absolute requisite of primary attainment, correctness of form at the beginning is of secondary importance to the movement of the story. Good proportions need not be neglected, however. They may be profitably considered, at first incidentally, and later with increasing emphasis.

Much direct instruction in such details, as how to hold a pencil and how to draw a line, and what kind of a line it should be, seems out of place at this age. Generally a child will learn such details better from imitation, which grows to be custom,

than from instruction. A vivid image of the thing to be drawn is likely to correlate itself naturally with the best way of drawing it, and the right kind of line to give the effect.

In an essay entitled "The Feeling of Effort," Prof. William James writes as follows : —

As for the manner in which this idea awakens its own proper movement . . . the simplest possible arrangement would be to let it serve directly as a stimulus.

This is the most effective way. Nothing is gained by interposing a second relay between idea and movement. A sharply conceived end directly awakens movement. The fewer the interposed steps, the more securely the child acts.

A survey of courses in primary drawing suggests that in general an attempt is made to do too much teaching of the principles of drawing. In my opinion, children would be gainers if first-year primary drawing, though still under general direction of the supervisor, was entrusted largely to the grade teachers, to be employed in connection with other school work, and as graphic language work.

A large part of the supervisor's usefulness in this grade would then be in visits of encouragement, when, to enthuse and stimulate the children, he drew on the board with a skilful hand many rapid sketches of whatever topics were under consideration.

The fear that little children will endanger their individuality, by imitating the drawings thus made, is groundless, provided the drawings are good. It is natural for them to imitate. By this very method they will probably come most quickly each to his own way.

Intermediate grades : Children after the first two or three years of school life generally show some interest in making *correct* representations of objects which are within their appreciation. They wish to know *how* to draw, how to make their sketch look like the object, how to represent simple effects of perspective. During these years the sense of direction and the ability to judge size, proportion and placing seem capable of development.

Two things are especially important during this period : —

(a) Development of a sense of proportion ; ability to sketch simple objects in correct relations of height and width, and general position of parts. Without this a child is likely in later years to go on after the fashion of primary children, — inventing his drawing from suggestions furnished by the object, instead of truthfully representing the facts. Apparently this habit of careful drawing in good proportion cannot be fixed permanently during primary years, and not without great labor after the intermediate years. Its psychological place seems to be in the intermediate grades.

Two things, that might easily be avoided, seriously hinder the accomplishment of this important step at this age : —

The presentation of objects too complicated to be truthfully expressed in the allotted time. For example, a child eight or ten years of age, who is trying to draw a spray with two or three leaves, in one lesson, can give his attention to the correct placing and proportion of these. But if the spray has a dozen or more leaves, he is bewildered by the complexity. What would be an interesting problem for a skilled draughtsman is too difficult for him. Soon he ceases to study the specimen before him, and proceeds to make up a twig with more or less leaves, as the general appearance of the specimen suggests. Before long, the fact that some of the leaves on the twig incline upwards, where those in his drawing tend downwards, ceases to trouble him.

This is a common and exceedingly unfortunate aspect of intermediate object drawing in public schools. Under such circumstances a child is forming habits of careless drawing which will be a detriment to all his work.

A second influence is responsible for much neglect of practice in representing plain facts. This is the attempt to train æsthetic feeling by having children in intermediate grades observe objects and natural specimens, and make therefrom original compositions, supplying the lacks and suppressing the superfluities of nature.

Although older children may do this with some success, results seem to indicate that it is premature when attempted by intermediate children. Composition and invention of the right sort, in illustrative drawing, for example, are valuable,

but they should be kept sharply distinct from practice drawing from nature. Each has its place. With training one can design an ornament, but he cannot design a map. A child's interest in making things pretty should not displace his interest in making them right.

The prevalent practice in intermediate grades of making compositions of highly conventionalized objects, which depend for their interest on abstract spacing, and on tones of color obtained not from the objects but by theory of color scales, seems to me to belong to a later period of school life. I seriously question the value of attempts at æsthetic manipulation of forms reduced to mere symbols, before those forms as they naturally appear can be appreciated and fairly well drawn.

The transcendent value of ability to make drawings which give correctly the plain facts of appearance is too generally disregarded. It is this the mechanic wishes he had been taught, for, with his pencil at his command, an endless field of experimentation is open before him, at great saving of time and material. It is this professional and scientific men covet and often find indispensable to their work. It is this which is a necessity to the artist; it is an important aid to the fertility and originality of the designer's ideas.

The doctrine that interest should govern activity has been frequently misinterpreted in the realm of drawing. Often it has degenerated to an idea that interest is present only when the process is made play. During the intermediate years an interest in drawing a thing right, even though this implies some drudgery, is a legitimate source of appeal. If aroused, it gives a pleasure with staying qualities, a healthy enjoyment of a more sturdy though less exuberant type. Children are old enough during these years to do a certain amount of drawing that is not rendered fascinating by play of color or accidental results of fluidity of the medium used, but whose sole test is that it is right, — a correct representation of the character and proportions of the object.

Much reliance has been placed on pencil measurements as a device to be used at this age for determining the correct proportions of objects. However valuable for adult students, pencil measurements are generally bad for children in ele-

mentary schools. It takes more of the time allotted to drawing to teach children to make pencil measurements that are at all trustworthy, than to train their eyes to judge equally well without the measurements. The latter ability is as easily obtained and much more to be desired.

As a supplement to drawing directly from objects, memory drawing, if wisely employed, helps to careful observation. Some experiments along this line have been made, based on the following plan : —

Children studied the object to be drawn. Then it was removed from sight, and they drew from the mental image. After they had gone as far as they could in recording first impressions, the object was again studied, then removed from sight, and additional impressions noted. No drawing was done while the object could be seen.

The particular advantages from this method of working are that children see and sketch the objects as wholes, and not as an aggregation of details seen one at a time, and noted with little relation, as is often the case when all drawing is directly from the object.

With several classes of primary children, a few topics were chosen for special study. Such topics as barn-yard fowls, frogs, rabbits, etc., were considered for several consecutive days, and in some cases weeks.

The children drew from memory the animal which was being studied, in various positions and as illustrations to numerous stories told of it. Very little criticism was given, but the children made daily reference to the living animal, and to pictures and to drawings made by their classmates and by the supervisor. Any new pose of the animal, seen in a picture or in nature, generally made its appearance in the drawings. Soon the children could draw that animal in any position desired. Drawings made under this sort of instruction showed an unusual freedom and strength. The progress in ability to represent was perceptible from day to day.

Free-hand map drawing, according to a method somewhat akin to this, is recommended in the report of the superintendent of schools in Quincy, Mass., for 1903. In that report, page 26, Mr. Parlin says : —

In the fifth and sixth grades especially, free-hand map drawing after the following plan will prove a profitable exercise: Let the pupils look at a correct map for one minute, observing the general shape and relative dimensions; then remove the map and allow one minute in which to draw the *outline*; then let the pupils compare for one minute their drawings with the map; again remove the map and allow a minute for corrections; once more present the map a minute for comparison, and allow another minute for correction. During these six minutes the pupils will have secured a much more definite mental picture of the outline of the continent or country than by the usual method in a much longer time. A few repetitions of the process will enable them to draw very creditable maps from memory.

Such memory drawing is said to be the prevalent method of instruction in Japan. From a book entitled “Japan, a Record in Color,” by Mortimer Menpes, is quoted the following (page 53, etc.):—

But nowhere is the difference between European and Japanese art so sharply accentuated as it is in the great schools of the East and of the West. We Westerners are taught to draw direct from the object or model before us on the platform, whereas the Japanese are taught to study every detail of their model, and to store their brains with impressions of every curve and line; afterwards to go away and draw that object from memory. This is a splendid training for the memory and the eye, as it teaches one to see and to remember. . . .

Kiyosai next began to discuss drawing, and, as he was speaking to an Englishman, English drawing in particular. “I hear that when artists in England are painting,” he said, “if they are painting a bird, they stand that bird up in their back garden or in their studio, and begin to paint it at once. . . . Now, suppose that bird suddenly moves one leg up,—what does the English artist do then?” . . . I asked him what then was his method. “I watch my bird,” he replied, “and the particular pose I wish to copy, before I attempt to represent it. I observe very closely until he moves, and the attitude is altered. Then I go away and record as much of that particular pose as I can remember. Perhaps I may be able to put down only three or four lines; but directly I have lost the impression, I stop. Then I go back again and study that bird until it takes the same position as before; and then I again try and retain as much as I can of it. . . . It is a hindrance to have a model before me when I have a mental note of the pose. What I do is a painting from memory, and it is a true impression.”

This sort of memory drawing is a powerful factor in developing observation and visualization. It trains a sense of proportion and an appreciation of dominant characteristics. Results along this line suggest the value of further investigation.

(b) Simple effects of perspective. Mechanical perspective has practically disappeared from all elementary schools.

The formal presentation and explanation of free-hand perspective principles have been abandoned almost entirely in grades below the seventh year in school. The anachronism of trying to teach foreshortening and convergence from a small wooden cube, in lower grades, is a thing of the past.

Instead of arming a child at the outset with general principles, to be applied when occasion arises, a more effectual way has been found in taking up each problem as it comes, and finding out, not only by study of the object, but also by study of pictures and drawings, how the desired effect is produced.

A child gains a permanent and practical knowledge of perspective principles by trying to produce an effect which he desires; and then going with his sense of need to drawings and pictures where others have expressed that effect in a way which satisfies him, then trying again for himself. A principle has its chief value for him when it is a late induction based on various attempts and investigations, rather than when it precedes actual effort to solve problems.

A large part of the difficulties of perspective vanish when children understand just what appearance they are to represent. Usually a definite statement of the perspective effect to be drawn is more effective than a detailed explanation of the principles by which it may be done. For example, a child's interest in making his drawing look like the half apple before him, in its particular position, is likely to produce better perspective results than an explanation of the principles of foreshortened circles by which that effect can be produced, even though the explanation is clear and interesting. The boy who discovered that in a drawing a book could be made to appear to lie flat by "squeezing the lines together," had made a beginning in practical perspective.

Grammar grades: In these grades should be developed a more accurate sense of proportion of whole height and width,

and of relation of the parts to the whole, and ability to make more effective representations of perspective appearances. The children have also sufficient maturity to possess some appreciation of artistic composition in their drawings.

When necessity arises, requirement should be made for accurate detailed drawings, such as are needed to illustrate nature study, — drawing whose aim is to meet the scientific needs of the botany and physics note book.

Summarized, the foregoing suggestions as to the progressive development of free-hand drawing are: that small children should be allowed and encouraged to draw freely in connection with their other school work; that their work should at first be mainly memory drawing, that is, telling picture stories “out of their heads,” the main purpose being to secure facility in expressing whatever ideas they possess; that at first incidentally, then more and more definitely, comparison should be made with objects, and the drawings modified accordingly; that gradually should come drawing directly from the object, supplemented by memory drawing in its best form, which should continue throughout the course; that object drawing at first should concern itself with sketches which show the characteristics and the proportions of objects as wholes, — that is, with such general proportions as height and width, the lesser proportions being considered subordinately; that instruction be directed towards ability to represent these with facility, and the objects be carefully selected so as not to present a confusion of detail; that simple perspective effects be attempted as they present themselves; that in the upper grades, when the large proportions of objects can be truthfully represented, more complicated relations of parts to the whole and to each other be attempted, also more difficult representation of perspective effects; that exact records of facts of form and structure should be expected, and the drawing of these for the most part separated from drawing involving æsthetic ideas, and made the accompaniment of such topics as nature study and physics.

The use of the brush as a medium of expression is exceedingly valuable throughout the course. Its power to express shapes in silhouette, added to its use with color, makes it indispensable to the best work. It should not displace the pencil,

however, but at least share equally with it. In practical life the pencil is usually the medium nearest at hand, and the one which a man is most likely to wish he had been taught to use.

In the midst of an increasing array of methods of instruction in free-hand drawing, it is well to remember that correct drawing comes only from thoughtful comparison of the drawing with the object, — such comparison as will develop sense of direction, size, proportion and placing.

This cannot be done for children. If by any device — help, information or criticism — they are being saved from that process, and a good deal of that process, they are not learning to draw, no matter how interesting the lessons may be to them.

The power to draw correctly and well is of supreme value in the arts course. It is the basis for work in all lines of the arts, æsthetic and mechanical, the absolute requisite of a public school course in industrial drawing, and is at present the weakest point in our system of industrial drawing.

2. *Working drawing.*

Primary: Mechanical drawing as such has little or no place in primary grades. The time for accuracy in lines and measurements has not yet come. In the latter part of the primary course practice in representing a few geometric relations is valuable. Children feel a delight in the mere physical movement of drawing. They are interested in the sweep of a large circle, and the steadiness of movement in a long straight line. They are interested in the self-control necessary to produce such lines.

The best of this interest is lost for small children, unless the drawings are large. The size of geometric drawings should be in inverse ratio to the size of the child. His interest is not so much in the thing drawn as in a perception of relations. A child attempting to draw long vertical lines on the blackboard is quickening his appreciation of the laws of balance. Later may come problems that deal with more complicated relations, such as drawing one line so that it makes right angles with another, or in drawing lines which are parallel.

Perhaps the most valuable introduction to working drawing is embodied in the constructive work which is yearly finding a larger place in the schools, — such work as the representa-

tion of Indian, Esquimaux, Dutch and Puritan villages in the sand box, of toy furniture, boxes, calendars, Christmas gifts, etc.

Intermediate: In the intermediate grades construction work should involve measurements and development of surface, and that kind of form perception which prepares the mind to deal readily with orthographic projection. In connection with the construction work there is opportunity to give the children a valuable familiarity with the use of rule and compass.

Grammar: The conventional lines, views and arrangements of working drawing, adopted by workshops, may be easily and quickly learned if deferred till the seventh or eighth year. That is usually the time when shop work in manual training begins. Practical working drawing is the natural attendant of the shop work. The objects made furnish a normal incentive and become an interpretation of the drawings.

Where working drawing is studied without relation to construction, results often show well in an exhibition; but pupils may have gained little or no practical knowledge. From the nature of the subject, it is remarkably easy to dictate exercises, the result of which, on paper, may have all the semblance of the fruits of good instruction.

In the upper grades pupils should have training in an accurate and rapid use of rule, compass and drawing board, with T square and triangles. They should also be skilful in the ready employment of diagrams, not only in connection with drawing, but with history, geography, mathematics and other school work. Where school gardens exist, such use of diagrams as is involved in plotting the ground to scale is exceedingly practical.

Much need exists for an accurate knowledge and use of geometric terms, such as parallel, vertical, perpendicular, diagonal, diameter, radius, etc.

3. *The sense of good design.*

Esthetic training, one of the most valuable of the functions of an art course in public schools, is still one of the least understood, and least satisfactory in its application. A practical grading of the principles of instruction in this field is as yet even more indefinite than in that of free-hand or mechanical drawing. The outcome is more dependent on the school, home and town environment, and on the personality of the teacher and the supervisor.

The results at present attained seem to show that certain methods are worth consideration in any scheme for better æsthetic education. Some of these are herewith suggested.

Perhaps the most effective influence throughout the school course comes from good surroundings, and from forming associations with choice things; and, on the whole, trusting the effect of accustoming the eyes to such things rather than attempting much direct instruction concerning their excellent qualities. Children who are enjoying to the full their love of flowers and bright color, and are living in the midst of fine surroundings, — which is possible for part of the time at least, if the school is what it may and should be, — are exercising that which later may develop into mature æsthetic appreciation, if not interfered with too much.

Harmonious color for the walls of the room, well-chosen and well-arranged pictures, vases, plants and other furnishings exert a definite influence upon the formation of good taste. At all ages these things aid the development of a feeling for good design, which differs essentially from instruction in the principles of good design. It implies accustoming the eyes to fine proportions and harmonious color, so they become good judges by habit as well as by education, and are gradually attuned to what is excellent.

Schoolroom decorations should be made under the best advice available, and a censorship established over gifts which may be intrinsically artistic, but not expedient to the end in view.

The matter of schoolroom arrangement is about as important as the choice of material. To be surrounded by a lot of artistic things is not necessarily to have an artistic environment.

The study of design.

Primary: In the matter of primary designs, such as those for school work, Christmas cards, calendars, gifts, etc., children at this age readily imitate good arrangements and show considerable originality without departing from the excellence of the type shown them. It is probably wiser to make use of these imitative tendencies, in order to guide their designs into good forms, than to give them any formulated principles of good design.

Intermediate: In choosing subjects for design at this age, it seems better to select those whose test of excellence will be that they adequately meet certain conditions demanded by their purpose, — conditions which can be easily appreciated by the children, — rather than subjects which demand purely artistic qualities.

For example, a cover for school work gives opportunity for appropriate ornament and for fine spacing in the arrangement of the necessary lettering; but its prime reason for existence is utility, — the particular topic for which it is planned governs all details. On the other hand, the artistic qualities of a pictorial composition may be more abstract, and less dependent for excellence on the fulfilment of any specified intention.

A card bearing the name of the teacher and the grade of the school, to be put on the door of the schoolroom, may involve good proportions, excellent printing, rhythmic spacing, and also the choice of an appropriate place on the door; but its purpose more directly determines these, and such determining is plainer to a child of nine years than would be the case if the subject were a tile or a wall paper.

Design for a pen tray or pencil rack, which the pupil is to use on his desk, may involve beautiful curves; but the particular use of this object has a more authoritative determining influence on its details than in the case of a vase.

In objects of the first class the determining conditions are particular, definite, concrete and close at hand; in objects of the second class they are more general and abstract. In objects of the first class the feeling of satisfaction at success is dependent especially upon the adequacy with which some particular purpose is fulfilled; in the second, satisfaction depends more upon an appreciation of the artistic qualities of the object, apart from its specific function.

As subjects for design, objects of the first class seem more appropriate for children in the intermediate grades, and objects of the second class for pupils of greater maturity.

In this connection it may be remarked that the appeal for admiration of beautiful things for purely æsthetic reasons is one which is likely to lose its vitality if made frequent use of at too early a period.

Many experiments tried in the schools of this State seem to indicate that the above distinction in the matter of subjects for design is worth consideration.

In the eighth and ninth years of school life it is possible to develop some genuine appreciation of beautiful vase forms and rhythmic spacings and fine color harmonies, but little of the sort that is at all spontaneous has been observed earlier than that time. The æsthetic sense seems slow in awakening, and probably nothing is gained by attempting to hurry its development. This consideration is presented in spite of memories of many school exhibitions, where the work of children in intermediate grades has seemed to prove the opposite.

Doubtless the imitation of designs, excellent mainly for artistic qualities of form and color, is valuable during the intermediate and early grammar grades. However, when such subjects are attempted, the striving for originality of design at this age is probably of tertiary value, compared with striving for beautiful design, even when the latter can be obtained only by imitation.

To children of this age, out-of-doors is wonderful, the clouds are full of suggestion and the forest of mystery. Stories from past and present literature, and pictures, particularly those of modern illustrators, are excellent food for the imagination. All these things are accomplishing their legitimate work in furnishing material which will assist æsthetic development; but it is to be doubted if it is time to call for expression of these in terms of abstract artistic beauty of form and color.

As one watches the progress of children in the arts, he is inclined to question most seriously the value of that kind of work now so common in pictorial composition,—namely, landscape composition, in which highly conventionalized symbols are used as elements without regard to the actual forms and colors of nature.

The true symbol for a natural object is that which a man has formulated for himself from hundreds of sketches of the thing as it is. When one gains his own broad view of form from many labored representations of its details, then his silhouette is not an empty shape, but informed with all the detail from

which it was generalized. The exhibitions of children's compositions worked out with these broad generalizations of form and color are remarkable and full of interest. Nevertheless, when one considers the great end in view in aesthetic training, namely, a sincere response to beauty, one is inclined to fear that the apparent success is specious, — deceitful as to its actual effects.

During the intermediate and early grammar grades, perhaps no better foundation for later artistic expression and appreciation can be laid than the careful study and expression of things as they are. It is likely that a child, at least until high school age, and probably later, gains more appreciation by studying carefully and drawing accurately the curves and structure and proportions of a leaf or flower, though with much labor and repetition, than by inventing many sets of the "weakly flapping curves of *L'Art Nouveau*."

Practice in landscape composition is of undoubted value; but instead of a landscape dependent wholly upon relative spacing of arbitrarily chosen symbols, a proper problem for mature minds, it would seem more suitable for children in intermediate grades to make landscapes to illustrate their current lessons in geography or history. Greenland, Holland, Massachusetts, Switzerland, furnish interesting topics. The elements would not be meaningless, but those the children chose as characteristic of the country. The laws of composition would be exactly the same. The subject of composition would not suffer, and that of geography might profit. The children would be encouraged also by the feeling that there is occasion for the instruction which they are receiving.

On this subject the following quotation is full of valuable suggestion : * —

The fact that drawings, paintings, pictures, please us, encourages the working out of technical prescriptions from them for instruction in art; but the pleasure must be a pure and natural one, as little as possible dependent upon fugitive fashions and capricious tastes; and, if our pleasure is a refined eccentricity or even perversity, it is certain that we have no right to infect with it the taste of the younger generation. Seldom has this danger been so near as in our time,

* "Psychology and Life," Hugo Münsterberg, pages 167, 168.

with its preraphaelitic and Japanese preferences, with its poster style and its stylistic restlessness. The healthy atmosphere for the taste of the child is harmonious, classical beauty.

The man who has passed his training in pure beauty may reach a point where a reaction against classicism is a sound and mature æsthetical desire; but to begin with eccentric realism or with mysterious symbolism in an immature age is a blunder.

The educational mistake becomes worse if that style is allowed in the schoolroom which is over-indulged in our time, and which is most antagonistic to the child's mind; I mean the primitivistic style of our posters and bindings. The simple forms of primitivistic art are not a real returning to the beginnings of art, which would be quite adapted to children. No; this style means an ironical playing with the primitive forms on the basis of a most artful art. It is masquerading with the costumes of simplicity, — not the real desire for simple nature; and the spirit of irony alone makes it possible and so dangerously attractive for our taste.

If a school exhibition of drawings in the style of the yellow book appears to our eye pleasant and almost refreshing, after the tiresome elaborations of our own school time, it is our moral duty to ask, not what we like, but what children ought to learn to like. Irony toward the most mature products of civilization ought not to flourish in a child's mind; and if the ironical curves of the Beardsley style become the trained methods of children, who finally believe that they really see nature in conventionalized poster style, and use those lines thoughtlessly as patterns, the result is decidedly a perverse one.

In view of its importance, the subtle difficulties of the problem of æsthetic education are no excuse for considering it impossible of solution.

Continued work in public schools stimulates the belief that the great majority of people, even the so-called "lower fourth," can be led to respond with a high degree of appreciation to beauty in nature and art. Such an appreciation increases the capacity for individual enjoyment, and raises the standard of workmanship. It is of preëminent value to industrial production and social pleasure.

4. *Some acquaintance with good examples of drawing, painting, architecture and sculpture.*

Among the effective aids to this are the following: —

Primary: A few good pictures and casts in the schoolroom, chosen from those within the range of the interests of children.

Casts of white plaster are usually glaring and unpleasant; they are better if ivory tinted. The list of appropriate casts is more limited than that of pictures. Children like such as Donatello's "St. John," Thorvaldsen's "Night and Morning," and the animals of Barye and Frémiet.

Familiarity with well-illustrated children's books awakens appreciation. Modern illustrators have brought the art of illustrating for children to great perfection. With all this wealth of material, however, one thing should not be forgotten, namely, that the main question is not, how many pictures can be brought within the child's range of vision, but on how many can his imagination lay hold. In the days when pictures were fewer than at present, a child would often pore for a long time over some poor print, till his imagination wandered far into its perspectives and lived with its characters. Such a print sometimes grew to be so full of suggestion that in later years the grown man hesitated to throw it away, after he had come to see its artistic worthlessness. Even the wayward cracks in the plastering of old, bare schoolrooms often became interesting to the imagination of children, who pictured scenes among them as one sees constellations in the stars.

If hunger is the best sauce for physical food, it may be that a reasonable degree of appetite, begotten of temperance, aids in the assimilation of artistic nourishment, especially the strong meat of masterpieces of art.

Intermediate: To children of this age, stories of the artists are an aid to interest in pictures. This should not be mistaken for æsthetic training, although in aiding historical knowledge it does doubtless favor artistic appreciation. All analysis of composition may well be postponed till an age of greater maturity.

In some schools a certain place in the room is devoted to the pictures that are to be studied during the year. The place is usually low enough to be nearly on the level of the children's eyes, and in a spot where they can gather around and discuss the picture. Sometimes an easel is placed for this purpose in a well-lighted corner. One after another the pictures are put there, with some comment, as little as may be, and each occupies the place for a few days. If the order of presentation is

well planned, children soon learn to recognize the work of individual artists from the style of the pictures. Thus they become acquainted with the style of Corot, of Burne-Jones, of Millet, etc.

It is best that the pictures shown be good photographs directly from the originals, rather than engravings or enlargements. Even though they must sometimes be small, the more complete interpretation of the original given by a photograph makes full compensation.

Grammar: In the grammar grades stories of artists and their times, and consideration of circumstances under which the works of art were produced, are of increasing value in adding interest to the subjects studied. At this age children show some genuine interest in examples of good architecture, and specimens of fine design, construction and decoration. Some discussion of works of art from an artistic standpoint can doubtless be made valuable. Even in these grades, however, it is probable that the mere presence of an artistic object, sensibly brought to notice, may be trusted as a more effective factor in developing æsthetic taste than any formulation of statements as to why it is beautiful. Knowing why a thing is beautiful differs fundamentally from knowing that it is beautiful. The pleasure of considering why a thing is beautiful is another thing from the pleasure of contemplating its beauty. The first is intellectual, the second æsthetic. The first may supplement the second, but is not to be mistaken for it.

Where one feels that he has reason for a faith in the efficacy of teaching principles of pictorial composition to children, it is well to remember that such principles are as clearly exemplified by, and may be as well taught from, good magazine illustrations as from classic masterpieces. The great work of art can thus be left to make its impression on the mind, free from any associations with analysis.

Even though the children understand these principles of composition, this should not be mistaken for æsthetic appreciation. It is a valuable and perfectly legitimate sort of appreciation, but different and more appropriate for minds maturer than those of school children. The sense of obligation on the part of a teacher to impart minute instruction to children re-

garding the principles of composition and design of a beautiful thing under consideration is likely to be in inverse ratio to his own æsthetic appreciation.

Throughout the State, the number of museums and exhibitions, industrial and artistic, is increasing. These are important factors in training artistic taste. They will become still more effective, when amount of material is unquestioningly sacrificed to quality. Then people who are not sure what to look at can go into a few rooms, where they may be certain that every object is artistic; where at least a portion of the space is devoted to the needs of those who would like to become familiar with the best, but who cannot always trust themselves to select it unerringly, and who are bewildered at the array often presented.

An art collection differs in function from an archeological or historical exhibition. Its objects are presented for their own intrinsic beauty, which can be enjoyed and appreciated primarily, apart from any knowledge of who made them, or when or where they were produced. If a town museum possesses fifty paintings, ten of which are of high artistic merit, its influence upon the good taste of the people will be greater if it exhibits the ten and excludes the rest, even though they are passable. If the remaining forty have historic interest, the cause of art and history as well will be promoted if they are exhibited in another room.

II. THE RELATION OF THE ARTS TO THE SCHOOL WORK AS A WHOLE.

A proper co-ordination of the arts with the rest of the school work is the necessary condition for the success of any course. If this has been neglected, the most potent factor for accomplishing that for which they exist has been disregarded.

As this is the feature of public school drawing which at present is with most reason open to criticism, it is timely to inquire:—

1. What sort of co-ordination should exist?
2. How such co-ordination may be best brought about?

As regards the sort of co-ordination which should exist:—

Drawing is taught in schools because of its close relation

and definite value to the life and work of people at large. This end is best secured when there is a corresponding relation between drawing and the life and work of school and home.

For example, it is altogether likely that the original call for and consequent invention and development of working drawing arose from the need of diagrams and measurements for mechanics and the sciences. Upon the development of these depended the evolution of working drawing. Is it not equally probable that the most valuable and permanent results of instruction in working drawing come when it is taught as called for by the mechanics and sciences of school?

To consider a typical instance: In geography children are taught to draw to scale. In the drawing class they are taught the same thing. Often the drawing teacher does not know what the geography teacher is doing, and the teacher of geography is ignorant of what is going on in the drawing class. The children are led twice over the same path, but in such a way that they do not recognize the ground as familiar. Here is a waste of time and energy. The lesson on drawing to scale in the drawing class neglects its greatest opportunity if it takes no account of the present need for that sort of drawing, which has just arisen in the geography class. It may well seek for and synchronize with the need to which it is the response.

The evolution of free-hand drawing of appearances probably arose from, first, the general value of graphic illustration in all lines of work; and, second, that particular pleasure in artistic expression for its own sake, felt by those with special aptitude for the arts. Both of these incentives find natural conditions for growth in the illustration of school work when that is needed, and in the drawing of anything which will promote keener observation or pure pleasure in drawing.

The development of design came presumably because of a desire for beauty in objects which constituted the immediate environment. Even the highest examples took shape from attempts to satisfy this desire. Results indicate that the most satisfactory training for a perception of good design is secured by giving children a part in making some particular environment, perhaps the schoolroom or school yard, as beautiful as its conditions allow, and in doing their daily tasks with good

taste. There are no fundamental principles of design that are not involved in these. The children will thereby be led more readily to appreciate beauty wherever found, and to assimilate its principles for their individual needs, than if they had received simply instruction concerning beauty in general, and had attempted to work out universally applicable principles by means of arbitrary designs.

In the case of children, artistic impressions, unrelated to particular conditions, uncrystallized by immediate, definite application, are likely to evaporate or deteriorate. The basis of effectual results with children is expressed in this statement, that, though by instruction they may gain what seems to be artistic knowledge, they apply spontaneously only so much as came by way of concrete problems involving its use. The most is accomplished not when they have simply received the knowledge, or even have been taught to apply it, but when the knowledge has been discovered through specific uses. Such knowledge is thereby vitally associated with its embodiment in actual things, and is likely to be concretely used by children, if only from power of association. To state the idea in different words, a child's application of standards of good taste to every-day work and surroundings must become a habit before it becomes a principle.

In all departments of drawing the special lessons should consider needs as they arise, and train for the necessary technique. Even practice lessons may thus be closely related to some task in hand which calls for such skill. In this way the necessity for mere practice may be made to appeal with reasonableness to the children. At the same time, the finest examples of the principles involved should be shown. Thus the drawing lessons are naturally related to the life of school on the one hand and the widest realms of art on the other, and become the connecting link between them. It is the serious fault of many courses to go far afield to seek illustrations for problems which, unrecognized, are embodied in the day's work and the present circumstances.

The instances previously given are but examples of the natural relation which should exist between the arts and the curriculum as a whole. Co-ordination of drawing with other work

does not mean seeking fortuitous opportunity to apply principles already taught, but shaping instruction in the arts to meet actual needs as they arise, much as in the world's history drawing has developed to meet human necessities, — mechanical, scientific and æsthetic.

It is this close relation of the arts with all human interests that marks them as of fundamental importance. The same sort of relation which conditioned their evolution offers a suggestion of the way by which they may be most effectually taught. It may be questioned whether phases of the subject which do not allow of such relations are fundamental enough to justify their place in a public school course.

This close co-ordination which has been suggested does not necessitate an aimless course, in which drawing turns its attention from one topic to another, simply as an assistant. It is rather that its psychology is the same as that which governs the other studies, namely, the psychology of the child who is studying these various topics simultaneously. The topics themselves are not sharply defined and self-existent. They are varying fields of activity for the same mind, and so are parts of a whole. It is this very co-ordination of drawing with the rest of the curriculum that rescues it from ineffectualness, solves its problems, and transforms it from a special subject, promoting false ideas, to its true place as a part of the wealth of the race, — a tool to use and an interpreter to listen to.

How may such co-ordination be best brought about?

Observation of results in various places suggests the following as an answer.

The drawing course should not be merely an orderly sequence of exercises, based on increasing difficulty of execution, a progressive development of the subject, founded on its own logic; but its development should be conditioned also by the school and home activities and environment. It should find its topics and problems in or vitally related to these. There should be not a course in drawing existing for itself, but a drawing department of the school course. This necessitates: —

1. Grade teachers who have learned the value of drawing as a means of teaching.

For this we must look primarily to the normal schools. The

pre-eminent need is for teachers with a conviction that drawing is necessary to the best teaching. This is more fundamental than knowledge of technique or the philosophy of art education. Such a conviction is more than an intellectual assent, however sincere and complete that may be. It is possible only to the student who has found the arts necessary and helpful to his own general work and standing in the normal school. He alone will comprehend their actual value when he teaches.

Clearly this is attainable only when the drawing course is co-ordinated with the normal school work as a whole, and when its prime concern is to use the arts to answer the requisitions made by that work and environment. With each concrete response by the arts to a present demand, vitality is added to arguments for its value, and urgent incentive is given to necessary practice work. Such co-ordination of the drawing department with the school work as a whole is already evident in some of the normal schools of the State, and is one of the most encouraging promises of advance in the effectiveness of the arts in the public schools. When each normal student has found this vital value of the arts to his school life, half the problem is solved.

2. Supervisors who are students of the aim and spirit of the school course as a whole, and who realize what part drawing plays in the scheme of education; who know what goes on in the schools between the hours of the drawing lessons, and what relation drawing has to that work.

It is not enough that the supervisor be an excellent art teacher or an eminent artist. The problem is primarily educational. The training which would be appropriate for children who are to be art students later is not that needed for the majority of children in the public schools. An efficient supervisor will know the whole course of study. The general teachers' meetings held by the superintendent will be as valuable to him as to the grade teachers. He will gather hints from superintendents, from principals and teachers, from the children in their work and play and home life, and from the local industries and needs of those engaged in them, and from the natural and architectural features of the town. All these will have strong influence in shaping his course. It will be a

course planned for that particular town and the children therein. It will be developed and modified to answer needs, but not changed with every new device which appears. It will aim to present what the arts have to offer in promoting industry and making life more enjoyable. The number of supervisors who are doing this is slowly increasing, but the supply is far below the demand.

The most effective preparation for a supervisor is a union of art training with experience in regular school work. Each supervisor before or after his art training should either teach for a time as a regular grade teacher, or take a general normal course or its equivalent. The more comprehensive view thus obtained justifies the effort. However, a good deal of study and observation, sensibly applied, may make a good supervisor out of one who has had only artistic training without these advantages.

Such a conception of the work on the part of supervisors is the solution of the other half of the problem. On observing places where such conditions obtain, one finds that the standpoint of the grade teacher and of the supervisor affords supplementary and not discordant views of the matter. There is the minimum of waste and the maximum of efficiency for all concerned. The study of the arts ceases to be a specialty, and becomes a simple and natural training in one of the fundamental requisites of modern civilization.

Respectfully submitted,

WALTER SARGENT.

APPENDIX.

INSTITUTE FOR SUPERVISORS OF DRAWING.

On Dec. 30, 1904, an institute, under the direction of the State Board of Education and the Alumni Association of the State Normal Art School, was held at the Normal Art School, for supervisors of drawing and all others interested in public school instruction in industrial drawing. The program included the following speakers and subjects: —

Mr. G. H. Bartlett, principal of the Normal Art School: Address of Welcome.

Prof. H. H. Horne, Dartmouth College: "The Education of the Imagination."

Mr. Frank A. Parsons, Columbia College, New York: "The Modern Public Art Curriculum."

Mr. Frederick Law Olmsted, Jr., Brookline, Mass.: "Industrial Drawing from the Standpoint of an Architect."

Mr. Milton P. Higgins, president of the Norton Emery Wheel Company, Worcester, Mass.: "Industrial Drawing from the Standpoint of a Manufacturer."

Mr. Henry T. Bailey, editor of the "School Arts Book": "Principles of Design as applied to Printing."

Two of the papers, which refer particularly to the industrial phase of drawing, given at the institute are printed in full, as follows: —

INDUSTRIAL DRAWING FROM THE STANDPOINT OF
AN ARCHITECT.

FREDERICK LAW OLNSTED, JR.

It is with considerations of beauty in the out-door surroundings of men that my professional practice is concerned, and, so far as I have any personal responsibility for the teaching of drawing, it is in the

training of young men for the same pursuit of beauty; and yet, even because of what I have thus learned of art, I want to speak now of the use of drawing, not as a means of expressing conceptions of poetic beauty, but rather of its use as a convenient and commonplace means of explaining the shape and appearance even of commonplace things.

It is true that, through the definiteness with which drawing enables one to make clear just what it is about the shape of an interesting object that gives it such interest, drawing calls the attention more closely to the really interesting, pleasant, amusing and beautiful elements in one's surroundings, and makes one quicker to get pleasure out of them. But for most people that is an incidental benefit, just as the pleasure of reading poems and novels is incidental to the main objects in learning to read and write.

Says Huxley, in one of his illuminating essays on "Science and Education:" ". . . in addition . . . I should make it absolutely necessary for everybody, for a longer or shorter period, to learn to draw. Now, you may say there are some people who cannot draw, however much they may be taught. I deny that *in toto*, because I never yet met with anybody who could not learn to write. Writing is a form of drawing; therefore, if you give the same attention and trouble to drawing as you do to writing, depend upon it, there is nobody who cannot be made to draw more or less well. Do not misapprehend me. I do not say for one moment you would make an artistic draughtsman. Artists are not made,—they grow. You may improve a natural faculty in that direction, but you cannot make it; but you can teach simple drawing, and you will find it an implement of learning of extreme value. I do not think its value can be exaggerated, because it gives you the means of training the young in attention and accuracy, which are the two things in which all mankind are more deficient than in any other mental quality whatever. . . . You cannot begin this habit too early, and I consider there is nothing of so great a value as the habit of drawing to secure those two desirable ends."

"Nature studies" and other pleasant and profitable devices have been introduced recently in our schools for putting pupils in the way of exercising the faculties of attention and accuracy in observation. This is a move in the right direction, doubtless, if the opportunities for exercising those faculties are duly availed of; but if I am to judge by the product of the schools as I see it at Harvard, it is not enough to set an opportunity for mental exercise before the average boy to have it forthwith embraced. As the author of the Cynic's Calendar says, "You can lead an ass to knowledge, but you cannot make him wise."

How do you know that the opportunities for observing with attention and accuracy are being utilized? How can you gauge the efficiency of the methods? Only by constantly testing the results of the observation in a manner demanding a precision of statement which implies precision of ideas, or which at once indicates mental vagueness and inaccuracy.

Verbal statement, the most universal means of expression, whether used in the familiar oral recitation or the equally familiar and somewhat more definite written test or notebook, must be the chief reliance of the teacher in judging the pupil's mental condition; but, as regards many, many subjects of observation and study, drawing, if used to supplement verbal expression, affords a much more unmistakable test of the clearness and precision of a pupil's mental conception. Any one who has marked written examinations has had sufficient experience of the manner in which mere words may be used to cloak the paucity, obscurity or vagueness of a student's ideas; of how often a written statement shows neither ignorance nor precise knowledge, but leaves open loopholes for a claim of "correctness,"—correctness being confused with the absence of palpable error, just as truth is often confused with the absence of palpable falsehood.

I speak, then, mainly to emphasize the value of the extended use of drawing as a commonplace tool of instruction in the same everyday, matter-of-course manner in which those other graphic symbols, written English words and Arabic numerals, are employed.

Of course the availability of drawing as a tool of instruction varies greatly with the subject. In connection with language, for example, or with history, so far as history deals with social, economic and political conditions,—with abstractions,—it has little value; but even in history, in so far as history deals with concrete facts,—such as those of a geographical character,—drawing is of distinct value; and in all observational studies, all the physical sciences, it is an inestimable supplement to verbal expression.

Our tardiness in extending the use of drawing as a common and convenient tool of expression both in education and in the ordinary business of life is an interesting evidence of the persisting force of inherited educational tradition. When almost the whole intellectual interest of the educated class lay in the abstractions and speculations of the schoolmen, there was plainly no use for other than verbal means of expression; and in those days the written word and books became so firmly entrenched as the basis of all learning that it is only as yesterday that schools have begun to give recognition to direct observation of facts as a part of formal education. The use of drawing as a familiar tool of instruction is a corollary of laboratory methods, of "nature study," of a broad and practical as distinguished

from a narrowly scholastic education; but as yet, for the most part, we have not come to recognize fully the need of regular, commonplace drill in the A B C of accurate graphic expression, running parallel with the regular drill in forming letters and spelling words.

The anachronistic point of view from which many people regard drawing appears again in another inherited prejudice that has a very wide and deplorable influence, not only upon education but upon the whole attitude of the community toward life and work. Until a time far more recent than the days of the schoolmen, learning — misnamed education — was a prerogative monopolized, along with many other advantages, by a class of people who contemned productive manual labor of any sort, and relegated such labor to the unlearned and politically inferior classes. The general attitude of the educated classes and of the teachers who trained them was not materially affected by the existence of a relatively small number of educated artists and scientific men, who either sprang from the educated class and rose superior to the class prejudice against soiling the fingers with the labor of handling gross material objects, or sprang from the classes of manual workers and rose superior to the obstacles in the way of their mental education. It is a truism to say that the traditional association of this prejudice against productive manual labor with the idea of education and social distinction has been, and is, most pernicious in its effect upon a community in which an effort is made to give the benefits of education to every one; for the effort to secure a good education becomes with too many of us inextricably linked with an effort to avoid manual work; while the vigor and wealth of any community is, of course, primarily dependent upon the efficiency with which the major part of the people's energy is devoted to productive physical labor of one sort or another. It is equally true, however, and perhaps less trite, that the traditional methods of school training devised for an educated class which was to deal for the most part only with the law, with theology or with civil or military administration, — subjects all manageable by the use of language, without the aid of other means of expression, — are not methods adapted to the training of men who are to labor directly with the physical materials and forces of nature, whether as students or makers, whether as scientific investigators, or as artisans, engineers or inventors of either artistic or mechanical creations.

If practically everybody with a school education were expected, as of old, to devote his or her educated energy mainly to speculative or administrative effort, it would be reasonable to adhere in our schools to a thorough drill in the use of verbal and numerical notation as the only customary means of expression. That is to say, if we were trying to educate only such as ministers, lawyers, editors, bankers,

brokers, merchants, salesmen, clerks, pedlars, politicians and business administrators, it would do to omit drawing from the schools altogether, or to treat it as a mere “accomplishment,” — a sort of ornamental frill, attractive, but of very secondary importance. In fact, however, the majority of our people are, and must be, directly engaged in the primary productive industries, farming and manufacturing; in making things, not in merely buying and selling the products of others, nor in purely administrative occupations incident to manufacture. That is to say, the majority of those who go to our schools are to take some part in the making or shaping or growing of actual physical objects, having perfectly definite forms which will depend for perfection upon their efforts, and which can be accurately and clearly described only by drawings and not by words; and it is therefore essential that they have some facility in graphic expression, or they will lack the means of securing an intelligent, accurate and thorough understanding of their work in life.

The attitude of the educated gentlemen of the eighteenth century is well illustrated by that very sensible old gentleman-of-the-world, Lord Chesterfield, who wrote to his son in Italy: “You may soon be acquainted with the considerable parts of civil architecture; and, for the minute and mechanical parts of it, leave them to masons, bricklayers and Lord Burlington, who has, to a certain extent, lessened himself by knowing them too well. . . . I would also have you acquire a liberal taste of the two liberal arts of painting and sculpture, but without descending to those *minutiae* which our modern virtuosi most affectedly dwell upon. . . . All these sort of things I would have you know to a certain degree, but remember that they must only be the amusements, and not the business, of a man of parts.”

Now, that was a very sensible view to take, assuming the definition of a man of parts which Lord Chesterfield had in mind; but it is a most unfortunate view for schools which undertake to teach not “men of parts” in that sense, — not a class consisting of administrators, philosophers and idlers, — but a people consisting in the main of directly productive workers, having a personal responsibility, large or small, for the shaping of material objects. That such schools should try to teach drawing as a mere accomplishment, as “the amusement and not the business” of their pupils, is a fundamental mistake.

The more clearly it is realized that the ability to make pretty pictures is not the object to be sought in teaching drawing at school, any more than the ability to compose poetry or magazine articles is the objective in teaching children to write; the more completely drawing is integrated with other school work as a common and convenient means of expressing certain kinds of facts more accurately,

completely, definitely or succinctly than can be done in words, — the better will the teaching correspond with the needs of an industrial democracy.

The relation of the teaching of drawing in the common schools to the Fine Arts and to the development of an appreciation of beauty differs in no-essential respect from the relation to those subjects of the commonplace A B C; each leads to the use of a means of expression that may, if rightly used, bring the mind to a clearer understanding of everything presented to it, and, in so far as these things are beautiful, to a keener perception of their beauty. Written language, the most important tool which education puts in a youth's hands, leads many to the enjoyment of literature, and it leads a very, very few to the production of works of fine literary art; but schools can only briefly suggest to the youth the beauty of thought and expression to which language is the key. for they must first concern themselves with giving him a firm grasp on the tool itself, and on helping him to make his way with it into some other fields of knowledge, which may perhaps be less attractive, but which are even more essential in determining his efficiency in life. And drawing should, it seems to me, be taught in the same way. If the pupil can be made to regard it, in the way he does writing, as a laboriously acquired but commonplace means of expressing or recording facts, and of testing the accuracy of his observation and the correctness of his knowledge, he will be in a good position to use it both in the "practical" affairs of life and in developing his enjoyment of beauty wherever he sees it.

These considerations of course point to what has been said often enough before: that in school drawing both methods and subjects should be eschewed which demand, or even suggest, vagueness of graphic statement, or which permit inaccuracy of observation to pass undetected; that accuracy should be sought, at the expense of completeness; and that, whether drawing be ordinarily confined to clean outline work or whether light and shade and color be added, the pupil should be withheld by closely limiting instructions and by the character of the subjects selected from expending upon the elaboration of supplementary details time and energy which should go to securing greater accuracy in representing the few elements which he is definitely required to record. They point also to the desirability of a constantly increasing interpenetration of drawing with other school work, especially with arithmetic or other mathematics, with geography, and with any physical or biological science that may be touched upon; not only through the making of explanatory figures and drawings of objects studied but by the use in connection with arithmetic, algebra and geometry of carefully plotted graphic solutions of many problems as a check upon the numerical method;

by making simple measured projection drawings, both in plan and elevation, in connection with mensuration, geometry and physics; by making in connection with geography a map of the schoolhouse grounds, and studying large scale local maps and surveys before taking up the uncomprehended small scale maps of the books, so as to make real to the pupil that a map is nothing but a projection drawing, made in the same way as any other measured drawing; by the constant use of map drawing as a test of geographic knowledge; and by the encouragement of the use of diagrams and pictorial explanations in connection with letter writing and other English composition.

Perhaps my frequent iteration of the word accuracy is misleading, because there is a danger of finikin precision in regard to minor details which is as far removed from what I have in mind as are vagueness and "sloppiness." The character that I should like to see required in school drawing is perhaps better suggested by the word definiteness. Insist upon definiteness in drawing, and you can at once tell whether the pupil's observation is discriminating and truthful, and can soon make plain to the pupil how to see more truly and discriminatingly.

If problems are brought within the range of feeble powers by reducing the number and complexity of the qualities which the pupil is asked to represent in drawing an object, it is possible to insist upon a definite and perfectly unmistakable representation of the few qualities upon which attention is thus concentrated. There is always a temptation to follow a method easier for the teacher and pleasanter for the pupil, and to simplify the problem by accepting as satisfactory a vague or inaccurate outline and an indefinite attempt to suggest many other interesting qualities of form and color; but I cannot believe that such a method is a wise one, no matter how attractive it may be to the pupil to play at being an artist.

Permit vagueness of drawing, and both teacher and pupil are apt to deceive themselves as to the real discrimination of the pupil's observation, while the pupil so learns to associate the idea of drawing with vagueness and with floating notions about "art," — as a thing apart from ordinary practical affairs, — that drawing becomes useless as a means of easily communicating definite ideas about the shape of things that come up in ordinary conversation or in business, whereas it ought to be of inestimable value in just that way to most American men and women.

INDUSTRIAL DRAWING FROM THE STANDPOINT OF A MANUFACTURER.

BY MILTON P. HIGGINS.

The term "manufacturer" is very broad in its application. It is natural to expect that the manufacturer especially interested in industrial drawing is one engaged in making fabrics, such as prints, brocade silks, laces, wall papers, etc., because in these lines the manufacturer is dependent most upon the artistic design of his goods. But on this occasion I desire to speak from the standpoint of the manufacturer who depends upon the mechanical engineer, the machinist, the pattern maker or the blacksmith. I think teachers of industrial drawing are less likely to have in mind the bearing of their work upon these classes of mechanical industry.

I wish to emphasize the importance of industrial drawing for the mass of trade workers in these lines of manufacturing where the artistic or æsthetic sense is not supposed to hold a prominent place. For example, in the line of machine building the art of drawing has a very important relation to our industrial future. To this particular class of mechanics drawing has a broad field of usefulness: first, because it is a valuable means of expression, — the mechanic who is able to express himself by a rapidly made drawing is inspired thereby to more and better thought; second, because it opens up for him especially a broad field for experimentation and choice.

When by a sketch the manufacturer or the mechanic can place before himself and others many ways of doing a thing, he at once makes comparisons, and immediately chooses what he deems the best, the fittest or the most beautiful. He hits the mark after such a comparison, because with his sketches he has tried many schemes and compared them.

The manufacturer, however, does not admit, does not know, that he cares much for art, culture or beauty in his work. But in his own sphere he does care, and the greatest joy he feels is to get a thing right. Striving for excellence! That is what makes a workman love his work and succeed in it. He really becomes a creator, and when he succeeds he knows that what he has made is good.

Experimentation, comparison and choice mark the way of advancement. But life is too short to try many experiments, unless the methods of trying them are very simple. To build things of wood and stone and metal in order to test them, and to prove which one is best and fittest, requires too much waste of time and material. But the realm of experimentation that is possible with a pencil is wonderful and fascinating; it is almost as unlimited as is thought itself.

I have asked myself, from whence comes this fascination as we find it in the shops; and I think it is because through the art of drawing, by delineating and by designing, the mechanic himself becomes a creator of things. He not only learns to see things emanating from others clearly, but behold, he finds he can express his own ideas to himself and to others, and above all he recognizes that they are his own evolution.

For mechanics of all grades and ranks the habit of sketching and drawing becomes a great developing force. For a mechanic drawing becomes the avenue out of himself into the universe. He is not only learning about other people and other things as we do in the study of history and geography, but he is revealing himself to himself and to others, and the things revealed are *new*, — new to him and new to the world. This to him is the inspiring quality of his work.

All I have said thus far I am sure is in general applications not new to you, but when applied not entirely to the world of artists and scholars, but to working men, to mechanics and to manufacturers, it certainly has a vital interest for every manufacturer, for it has so much to do with our future and with our industrial supremacy among the nations of producers.

It is very important to ask what kind of drawing or art training will best meet the needs of a manufacturer and the needs of a mechanic. Must it have to do with art culture? Yes; for the mechanic knows art and he appreciates culture, but it must be his kind of art and his kind of culture, still art and culture just the same. Must it have to do with beauty? Yes; for he, the mechanic, loves the beautiful, but not always the same beauty that the landscape artist loves, but beauty just as surely.

What kind of drawing in the schools will meet our needs and our expectations as manufacturers? Simply this: a kind of drawing which will enable our children and induce our workmen to think clearly and to express the thought they have; for just as sure as the thought is expressed again and again by workmen, they compare and choose, and more thinking and better thinking follows. A child should learn to draw as a child talks when he does not think of his words.

In the mechanical industries the great primal feature, inherent and underlying, is construction. How is the thing made, is the all-absorbing question, and how ought it to be made, is the supreme inquiry. Nothing is more interesting to the child than to find out how a thing is made and how it works.

As touching the question of what school children should draw, it seems to me that mechanical studies in drawing must have some advantages over nature studies in drawing, viz.: the advantage of

developing mechanical exactness; the advantage of fixing the importance of definiteness; the advantage of vital importance of reliability.

For industrial drawing we need to get away from vagueness. I do not now mean to plead for mechanical nicety and exactness in the drawing itself, and not so much for the means of expression as in the idea back of it all. The conception which is to be expressed must first become very clear in the pupil's mind, and his expression through his drawing must be definite and exact in order to ever meet the needs of the manufacturer. It is not necessary to have a perfectly straight, even line to represent the mast of a ship, but the thought must be perfect and exact; and if the thought is, then the very thought in its integrity is likely to be expressed in the drawing, though the detail of the drawing is quite imperfect.

As to method, I have an idea that an involved, laborious, slow method of school drawing is a bad method, even if the drawings look ever so good. If the expression of an idea is too long delayed, there will be no idea to express; it had better come quickly, even if poorly.

Hence I have had for years a feeling that time and attention devoted to the art of perspective drawing for the industrial man is often to the neglect of the more important practice in plane projection. It requires too many lines and too much time, and is not a simple means of expression. Very simple drawing, when made with intelligence, is the drawing of greatest value to the manufacturer and to the mechanic. To draw a picture slowly, though it be good, is often of no practical value to the manufacturer; we want it quickly, if at all.

Do not think that I advocate confused haste in drawing, — quite the opposite of that; clear conception only will allow of quick expression. In order to make the drawing or sketch quickly, there must be not only few lines to make, but there must be the clearest knowledge of just where each line is to be placed to give a definite expression of the idea. For industrial work we do not need a broad general knowledge of the art of drawing or picture making, so much as a positive definite ability to make drawings and sketches in plane projection with great rapidity. This requires some knowledge and a large amount of practice.

It is disappointing to see graduates from the schools, after having had all the general instruction in drawing, attempt a sketch of a simple mechanical construction or even the simplest machine part, and notice how uncertain they are. There are certain standard elements in all machine construction, such as the screw, the bolt and nut in all their various forms, that should be as familiar in the mind of the draughtsman as the letters of the alphabet. In the great field

of mechanical work and machine construction many such things as these have become classics, and occur over and over again. They do not have to be redesigned or invented; they have arrived at a stage of perfection beyond which we cannot see any improvement. There are also combinations of lines, curves and surfaces that are likewise standard. Therefore these standard elements should be lessons of minute study, and the sketching of them so dwelt upon and so often repeated that whenever such standard elements are to be represented there will be no hesitation in drawing every line in its proper position; such elements may be sketched almost involuntarily.

Absolute confinement to the fewest necessary lines is one of the essentials to good sketching.

I have intimated that the realm of art and of beauty may not be the same for all; that beauty for a machinist may be different from beauty for the poet or the landscape artist. For example, take a machine designer, one who has not only the scientific knowledge necessary for his profession as an engineer, but one who has the sense and the spirit of art and beauty as it bears upon his particular work. His creations cannot be decorated with beautiful forms, nor with colors made harmonious by selection and combination. His product, the work of his hand, must stand out in a single flat tone. The surfaces may be beautifully soft, but they must not shine. His work cannot be made beautiful because he has introduced grace and beauty from all the sweeping curves of nature; the architect may have such a privilege as this, but not the mechanical engineer. The machine designer must be confined to the absolute decree to do nothing solely for beauty or ornamentation; every line must be a line of utility and strength.

Still, his work should be beautiful, not ugly. The inevitable law of good construction is the basis of all his work, but he is by no means insensible to beauty as an element very important in his work. Such a designer is confined for the production of beauty almost exclusively to the nice form of minor parts of the structure as a whole. For example, take one of the simplest geometric forms, a cube, when it occurs as the outline of a machine, and demand that it be made beautiful. The field there for beauty seems indeed very narrow, especially when it is specified that no color can be used. There only remains the character or perfection of the flat surfaces, and the finish or treatment of the corners. If the corners are left simply as lines of intersection of adjacent planes, they will be imperfect, and look ugly; if the corners are finished by a plane 45 degrees to the intersecting planes, the thing is somewhat improved; but the designer who rounds the corners with perfect cylinders of wisely chosen diameters, having perfect intersections with each other, and having the planes

exactly tangent to the little cylinders, — behold, a thing as angular and unattractive as the cube form has at last become a thing of beauty to such a designer.

And so it is with the machine designer throughout his whole work. He is limited in range, still, he finds a place and a demand for beauty in his work, and he recognizes the importance of it more than one would think possible; and if he fails to meet this demand for beauty, though so very limited, his work is a failure in the market.

I am impressed and gratified with the purpose of this organization, and I like the way it is stated, viz., “The Advancement of the Arts of Drawing, Design and Constructive Work in Public Education.”

This has suggested to me a few general observations on a very important phase of this problem, with which I will close my remarks.

In teaching drawing, design, and especially constructive work, we are likely to meet some of the same difficulties that are met in teaching engineering in colleges.

In the minds of workmen and the so-called “practical man” there has been a war between certain forces, sometimes believed to be a disagreement between theory and practice, — between art and science. But this difference is not between principles; it is but a difference between men.

The attempt has always been made to remove the cause of this clashing between the men called theorists and the practical mechanics, by giving the theorist some practice and the artisan more theory, still recognizing the two men each working on a different plane and living in a separate class. Along these lines of effort but very little progress has been made. There is a better way, viz., to educate one man by making him efficient in both science and skill, instead of two men, one having science and the other practice.

The teaching of crafts where the managers and teachers are not craftsmen, or trades where the teachers have not learned trades, or constructive work where the teachers are not constructors, is certainly a very doubtful undertaking. It is an exhibition of effort and enterprise that should certainly be recognized with gratitude on the part of manufacturers, because it awakens interest, and indicates that there is a significant demand in this direction.

But whether or not crafts and trades can be taught in public schools, so as to ever meet the needs of the manufacturer, is quite another question. It is doubtful if manual arts and mechanical trades can flourish or have a healthful development in just such soil. Somewhere, somehow, the manufacturer is looking for intelligent training of workers in skill of real intrinsic value, where the things that are taught will not need to be unlearned when work is begun in the real shop or factory.

For the training of our apprentices, for our designers and draughtsmen who can meet the needs of the manufacturer of the future, we recognize that we must have the work of professional teachers; we want the advantage of the best educational methods and systems; we must have science in our courses of training for the future working man. But it is very doubtful if this can be accomplished by the present school system.

We need to bring the school, the college and the shop together. This is a most necessary and promising thing to aim for. The shop and the factory need all the schools have to give. But how to accomplish this union is a question of vital importance. If we transplant the fern from the cool shade of the cañon to the cultivated garden, it may not thrive. When the shop is brought into the college, as it has been very generally during the past thirty-six years, it is almost sure to become puny and unreal. This wilting of the shop spirit may not be necessary, but the tendency to it is very great.

The American mechanic of the future must have science and culture, but when he takes up the book he must not drop the hammer. The school and the shop must combine, and the union must be real and organic. Possibly the practice of the past thirty-six years may have to be reversed, and the school be brought into the shop.

The difference may be a vital one. Great progress has been made during these thirty-six years; before that, the shop did not feel its need of the college, and the college did not need the shop. We now recognize our need of each other, and the question now remains to answer, How can they be combined to better advantage and with better results?

Science and culture brought into the shop vitalizes both, while the shop in the school or college becomes puny, and sometimes withers like a transplanted vine.

From now on the training of the American mechanic is far more important than our education of the engineer or the scientist. The standing and efficiency of the American engineer is established among the best engineers of other nations, and his energy and enterprise is likely to keep him abreast of the times.

But for the supremacy of the intelligent skill of our mechanics there is very little being attempted by education. From now on trade schools of high order, where skill and scientific knowledge are properly combined, are likely to be even of greater importance than are engineering colleges. The demand for professional engineers of the high rank of American graduates is somewhat limited in all countries, but the demand for intelligent mechanical skill seems unlimited; therefore, trade schools need endowments more than universities.

Manufacturers have come to the conclusion that they must look to

the schools for workmen suitably educated to meet their demands. They admit that they are dependent upon the educator. We cannot train our draughtsmen, designers or workmen in the factory without the aid of the teachers of science ; but the school teacher and the professor must not take this work too much out of the hands of shop men.

The spirit of the real shop must pervade the school where the arts of drawing, design and construction are taught with greatest success.

APPENDIX E.

INSTITUTE FOR SUPERVISORS OF MUSIC.

PAPERS READ AT THE INSTITUTE HELD UNDER THE DIRECTION OF THE STATE BOARD
OF EDUCATION FOR SUPERVISORS OF MUSIC, DEC. 10, 1904, BY B. JEPSON,
SUPERVISOR OF MUSIC, NEW HAVEN, CONN., JAMES M. McLAUGHLIN,
DIRECTOR OF MUSIC, BOSTON, HELEN F. MARSH, STATE NORMAL
SCHOOL, WORCESTER, FREDERICK E. CHAPMAN, SUPER-
VISOR OF MUSIC, CAMBRIDGE, MARY L. REGAL,
SPRINGFIELD HIGH SCHOOL, AND L. R.
LEWIS, TUFTS COLLEGE.

INSTITUTE FOR SUPERVISORS OF MUSIC.

Papers read at the institute held Dec. 10, 1904, under the direction of the State Board of Education for supervisors of music in the public schools of the State : —

B. JEPSON, SUPERVISOR OF MUSIC, NEW HAVEN, CONN.

Mr. Chairman and fellow teachers : If I am permitted to see Jan. 3, 1905, I shall have concluded forty years of continuous service in the New Haven public schools. I am not quite sure that this statement will commend me to the sympathies of my audience, or that I should ever have received an invitation to address this institute had my status been fully understood. I trust, however, that you will concede my eligibility to associate with vigorous men and women such as I behold here assembled, when I state that, with a constituency of 18,000 pupils, I am instructing classes every hour of school time the year round, giving thirty-minute recitations, with no assistants except the regular teachers themselves. If further proof were needed of my capacity for labor, I might add that during vacations, holidays and after school hours of all the years I have amused myself in systematizing and perfecting a method of musical instruction for children. These, then, are my credentials.

The country at large, and I might add the world at large, is indebted to this grand old Commonwealth for the solution of many educational problems. Not the least in importance was the first introduction of music as a regular branch of study in the public schools of Boston. To this city I came, forty years ago, for information and instruction at the commencement of my public school career. It is true that I visited other cities, but in a majority of cases I was disappointed in witnessing only methods of the poll-parrot order. It affords me pleasure to say that I am still absorbing a large amount of musical inspiration from the original source of supply. Be it understood, then, that I am not here to instruct Massachusetts supervisors how to teach music, but simply, by the courteous invitation of your honorable State secretary, to illustrate some methods and devices which I have found useful.

I have often listened with interest to the experiences of veteran associates in the great work of musical instruction. I have thought

that, by way of prelude, it might not be uninteresting to relate a little of my own experience, as it led up to what ultimately became my life work. In my young manhood I conceived a passion for organizing large choruses of children, and drilling them for public entertainments. As I had few competitors in those days, I was fairly successful in this line of work, and achieved reputation as a director of juvenile concerts.

In those days, as at the present time, children were always available for public performances. Parents also in those days, as at the present time, were delighted with the dress and display of their children. The music of course was charming, — it always is. Public patronage was bountiful, and I must admit that I enjoyed my work immensely. But one day there came upon me, as upon Saul of Tarsus, a sudden conviction that I was on the wrong track; that it would be a sinful waste of time and talent to spend my life catering to the amusement of the public at the expense of the rising generation. I then tried to combine theoretical instruction with song practice, but soon found that my classes were less popular than before. I found it difficult even to impress parents, much less children, with the fact that outside of school hours anything in the nature of study was legitimate.

As time went on I was impressed more and more, I may say burdened, with the idea that, as a science, the study of music could only be made successful in the public schools. I was encouraged as I read of music being adopted in the schools of several large cities, and inwardly resolved that I would spare no effort which might bring about its introduction in the New Haven public schools. To that end I labored for several years without success. In my dreams I fancied the time would come when this important step would be taken, and that my own personal ambition to demonstrate results would be gratified. At this point of my experience a crisis in our country's history side-tracked all local enterprises, and I found myself, with other loyal thousands, keeping step to the music of the Union. Victory for the Union cause and for my cherished idea came simultaneously. A petition signed by nearly two hundred leading citizens was presented to the Board of Education, requesting that music be adopted as a regular study in the public schools, and that no less a person than your speaker be employed as vocal instructor.

On the third day of January, 1865, I entered upon my duties, having in charge the upper rooms of seven schoolhouses, containing about 1,200 pupils. Year by year the number of schools, rooms and pupils were added, until all were included. I found at once a plentiful lack of apparatus with which to commence the work of elementary instruction, — no staff-lined blackboards, no graded music books or charts, less than half a dozen pianos of any description, and only

a scant supply of books containing hymns for devotional exercises. Most assuredly the outlook was forbidding. The school principals had no particular sympathy with the new branch of study, but were willing that the experiment should be tried. The regular teachers also, a majority of whom had little or no knowledge of musical theory, seemed willing that I should succeed, providing success did not involve additional labor for them. The Board of Education simply acquiesced in the proposition, and appointed one of their number to confer with me in reference to the general plan of instruction, the time to be occupied, etc.

The plan of most of our schoolhouses at that time was a two-story building, containing six rooms on each floor, with a hall twenty feet wide running the entire length of the building. The gentleman appointed by the Board advised that we proceed with caution, doing nothing to antagonize the views of the teachers or to excite public opposition. He suggested, as a general plan, that during certain hours of certain days the pupils of the six upper rooms, without reference to grade, might file into these long halls and remain standing during the exercise, say fifteen or twenty minutes; while I, as precentor and vocal instructor, occupied one end of the hall.

As you may well understand, this proposition did not accord with my plans for methodical instruction in the science of music. It was only after a vigorous protest that I succeeded in convincing all concerned of the utter absurdity of such a waste of time and energy. It was difficult indeed to convince the authorities that the pupils should remain in their session rooms, and that musical instruction should be governed by the same rules and regulations as obtained in other studies.

In the absence of all musical apparatus, I had constructed, at my own expense, a musical chart containing upwards of twelve hundred square feet of canvas. This chart was hung on a portable frame, and reeled off with a crank. With this apparatus, transported from school to school in a wagon, I commenced the work of musical instruction in the New Haven public schools. I soon wore out my musical hurdy-gurdy; but in the mean time I prepared and published, as I suppose, the first music book in the United States known as a music reader.

At the end of the first year I obtained the privilege of a public rehearsal of school music methods, in what is now known as the Grand Opera House. The mayor of the city presided; the stage was occupied by the Board of Education, representatives of the press, the clergy and other prominent citizens; the entire lower floor was filled with delegations from all grades and schools; and the galleries were filled with parents and friends of the children. The program

included sight-singing of classes and individual pupils from the black-board, interspersed with rote songs. The impression made was deep and lasting. Voluminous articles in the newspapers commended the results of musical instruction in the schools. With occasional lapses, I may say that from that day to the present the general trend of public sentiment has been upward.

If I may be permitted one more reminiscence of those days. One principal and five teachers, who marshalled the children on that memorable occasion, are all that remain in the service. The Hon. Daniel Gilman, president of the Carnegie Institute, Washington, is the only living member of the Board of Education which elected me to my present position. The children who participated in that demonstration are the fathers and mothers of the present generation, not only of pupils but of a majority of the teachers; occasionally the children mention their grandmothers in that category, — the great-grandmothers are yet to be heard from.

In reference to the work we are all interested in to-day, I may say that, however we may differ in reference to methods used and the amount of technical instruction to be given in the public schools, we must all concede that the one and only criterion of success recognized by the world of music is the ability of school graduates to read the music which they sing. The most artistic rendition of music can never compensate for the lack of this all-important equipment. Moreover, it cannot be doubted that the highest and best incentive to sing music is the ability to read it. I believe I can conscientiously affirm that during my entire period of public service it has been my undivided purpose — as I believe it to be the mission of every supervisor of public school music — not only to contribute to the musical pleasures of childhood, but to so instruct the children that, as they graduate from school life, every pupil may be possessed of a key with which they themselves may unlock the treasures of music.

Surely the time has passed when progress in musical instruction may be measured by the number of songs practised in a given time. Again and again we have been thrilled with delight while listening to memory songs; but, as teachers of the divine art, I doubt not you will agree with me that the satisfaction realized in listening to a perfect performance in sight-reading is much more enduring.

Opinions vary in reference to the grade in which elementary instruction should begin. If we may judge by a constantly enlarged curriculum in first-grade studies, it seems to be the consensus of public opinion that the bed-rock of all elementary instruction is in the lowest primary grade. My own experience is in perfect accord with that sentiment. If asked when I would commence elementary instruction in music, I would say, on the first day of school life. No

one doubts the desirability of song practice in the lower grades, especially during the first year, but that does not furnish a sufficient reason for the entire exclusion of notation. I would commence and continue rote singing, as it is commonly called, through the first four grades; but in third and fourth grades I would keep song singing subordinate to the practice in theory.

FIRST YEAR.

My own scheme of study for the first year contemplates a perfect knowledge of the staff, with ability by the class to sing simple seven-note phrases within the limits of the scale, without time or measure, in all keys, commencing with imitation numerals, syllables and childish rhymes; first to 3 of the scale, then successively to 4, 5 and 6, and ultimately to 8 of the scale; each added number of the scale to be illustrated with seven-note phrases within that degree of difficulty.

Examples.

1, 2, 3, Chickadee; 3, 2, 1, Snow birds' song; seven-note phrases.

1, 2, 3, 4, Knock at the door; 4, 3, 2, 1, Good morning, John; seven-note phrases.

1, 2, 3, 4, 5, Yes, we'll all contrive; 5, 4, 3, 2, 1, Down the scale to run.

In the meantime, the class practise the entire scale as a rote exercise. During scale practice the teacher, moving about the room, pauses near each scholar, in order to find out the number who are blessed with what is sometimes termed a "natural ear for music." Having ascertained the musical capabilities of each pupil in this way, the children who sing the scale perfectly in chorus are divided into five equal choirs, named after the days of the week.

During the fifteen or twenty minutes allowed for daily practice in theory, the members of the choir for that day stand in their places (this, you will notice, saves time) and sing alone some exercise designated by the teacher. In music, as in every other study, the teacher should know the ability of each individual pupil. Such knowledge can only be obtained by individual practice, which to my mind is the keystone of the arch. It goes without saying that the nearer we get to an individual basis of instruction, the greater will be the progress.

The intervals 1, 3, 5, 8 are also taught by imitation in this grade, thus:—

1, 3, 5, 8, Now sit up straight; 8, 5, 3, 1, Sing my new tune.

1, 3, 5, 8, Write on your slate; 8, 5, 3, 1, George Washington.

These exercises are to be followed in the same way as before, with seven-note phrases containing these intervals. A valuable aid for interval practice in this and all succeeding grades is the writing of

single notes on the blackboard by the teacher, the class singing as the teacher writes. In the practice of a seven-note phrase, pupils may possibly content themselves with a jingle of their own; the practice of single notes as the teacher writes them counteracts that tendency.

In my personal experience, half-hour lessons in every schoolroom on regularly appointed dates have been attended with results that could scarcely be accomplished in any other way. At each visit I have imposed upon myself the duty of listening to the individual members of a single choir, giving to each successful soloist a star for proficiency, so that during the year I am practically brought into personal contact with every pupil of my constituency. Exceptionally good readers with good voices are honored with a double star. This division into choirs is continued throughout all the grades. In the upper grades they are designated as double trios and double quartets. Pupils of all grades are ambitious to be enrolled in the star legion.

SECOND YEAR.

In the second year, time and measure, with whole, half, dotted half, quarter notes and quarter rests are introduced. I try to impress my pupils with the fact that accuracy in time is the chief element of success in the performance of any kind of music. In teaching this all-important principle, various devices, such as the swinging pendulum, time, names, etc., have been employed. My own theory is that the old-fashioned hand motion is the most successful in results. With pupils in the act of reading music, any device which does not permit them to estimate for themselves the length of notes and rests, by self-made counts or beats, cannot be a perfect success. As well expect a boy to learn the mysteries of base ball by watching somebody else swing the club. To insure perfect rhythm, counting time is indispensable to the player, and beating time to the singer. The only outside device which can be of any use whatever to the class is the audible tap of the teacher; this, of course, can be used to emphasize the motions of the class in beating time. The simplest and yet most effective method of developing perfect rhythm comes with the daily practice of scales, with and without ties, in every kind of time and with every form of measure; first by tying the sounds, and afterwards by writing the exercise and tying the notes. In this manner double, triple and quadruple measure may be successively introduced, and with them the half, dotted half and whole notes, to represent ties of two, three and four beats.

Dictation.

In reference to the subject of musical dictation, it may be said that this comparatively new departure in public school work is promoting

the very best results in musical instruction. By its use the musical ear receives the best possible musical training, the memory is improved, accuracy in reading music is promoted, and facility in writing is obtained; in a word, the children are trained to think in music.

I have found it perfectly feasible to introduce the first simple forms of dictation in the second grade, the first written work being on the blackboard. The teacher makes a sufficient number of subdivisions on the blackboard to accommodate the choir of the day, each sub-division being about two feet in width. The choir take their places with crayon in hand, and the command is given: "Draw staff, 5th line, 4th line, 3d line, 2d line, 1st line, double bar [at the end], single bar [at the beginning], divide [in the centre], sub-divide [thus forming four measures]." To test their knowledge of measures, the children are directed to place a note in certain measures, as the teacher may indicate.

The next step is to draw a staff and sub-divide into eight measures; next, to place a letter of some scale above the staff, and proceed to write successively each note of the scale, as the teacher may direct. Having finished the scale, they are taught to add stems to the notes, thus changing to half notes, then to quarter notes, and finally singing as a choir the scale which they have formed.

When in the course of their instruction the value of quarter and half notes is thoroughly understood, writing books with printed measures are introduced, and a line of eight measures is dictated, the teacher giving out two measures at one time. They are then required to prove correctness by singing in chorus the line they have written.

Dictation, thus begun, is continued throughout all the grades. A chief recommendation of this practice is, that it furnishes employment for monotones and pupils who claim that they cannot sing.

THIRD YEAR.

The general topics for the third grade are letters, signatures and eighth notes. As the scale may be written on any degree of the staff, and as the degrees are named after the first seven letters of the alphabet, it follows that, to become proficient music readers, the pupils must have a thorough knowledge of letters representing the keys. By the use of what for the want of a better name may be called note words, the study of letters (otherwise dry and uninteresting) becomes a source of pleasure as well as instruction. A long experience has demonstrated that by means of this device rapid progress may be made in letter reading. Outside of proper names, at least seventy words may be constructed from the first seven letters of the alphabet. In

order to give the class practice in this direction, exercises on the blackboard are so constructed as to form note words in certain measures, thereby arresting the attention of the class as they read in concert by letter. If note words are introduced in alphabetical order, it will aid materially in fixing the position of each letter in the minds of the pupils, thus: add, ace, age, bag, bed, bee, etc.

I have found the use of scale forms to be exceedingly effective in presenting all varieties of time and measure. Two quarters and a half, a half and two quarters, a dotted half and a quarter, two eighths and a quarter, a quarter and two eighths, etc., *ad infinitum*.

Accidentals are introduced in this grade, if I may use the term, by syllabic imitation, the explanation of chromatic intervals being reserved for higher grades. I am not sure that I can claim a patent on this device, but of one thing I am quite certain,—the result is very effective. As the sounds of accidental sharps and flats are relatively the same in all keys, *do* sharp and *re* flat, when the pitch is E, are as effectively produced in this key as in any other.

Transposition of exercises from one key to another is practised in this grade with considerable success.

FOURTH YEAR.

In the fourth year all intervals are taught, from thirds to octaves. Two-part music on the treble clef is also made a specialty. Calling for sounds by number, also writing individual notes of the scale, and requiring the class to respond by syllable and *la*, are used as general exercises. The writing of individual notes I can especially recommend. In an exercise with form and measure the pupil is propelled, as it were, by the momentum of the class. With individual notes he is left to his own resources, and often finds himself performing as a soloist. Sixteenth notes are presented in this grade. The best device, in my experience, is to let the class beat a few measures of quadruple time, and, as they beat, count audibly and rapidly 1, 2, 3, 4 to each beat; then repeat the exercise with the syllable *la*, and finally sing the scale ascending and descending.

Reading by letter, also dictation and transposition in their writing books, are continued in this grade. With all this detail, I am sure I hear some one asking if I find time at all for song practice. Most assuredly. Our music readers contain all the popular national songs, and it is made almost a religious duty, especially of the third and fourth year teachers, to see that the children are taught to sing them by rote. As a veteran of '61 to '65, I could not forget this obligation to the flag. For instruction in other rote music I depend largely on the regular teachers for the initiatory work, reserving for myself the privilege of listening and criticising.

FIFTH YEAR.

In the fifth year the bass clef is introduced. My own method of procedure is to write two C scales on adjoining staves by letter, the first commencing on the added line below, the second directly under the first, commencing in the second space. I then write the treble clef scale on the upper staff. As we strike the first note together, I call attention to the difference in pitch between their voices and my own; I then sing 8 as they sing 1, and again call attention to the fact that our voices sound in unison. This point being well understood, I show them that to find 1 of the scale for myself, I must proceed downward on the lower staff to the second space. Of course all this explanation may be omitted, but I think it far better that children should understand the *why* as well as the *how* of every principle.

It is scarcely necessary to say that a musical education is incomplete without a perfect knowledge of the bass clef. In writing on this clef I am careful to keep well within the limits of treble voices; and, as a final result of this practice, our girls as well as boys read equally well on both clefs. I do not think it wise to counsel boys to cease singing altogether during the period of mutation, but rather to make such use of their voices as they can without strain or injury. Of course if boys cease all practice in singing at this point, they naturally lose interest, and finally relegate the whole thing to the girls. Not infrequently the boys come to think that music is no part of a boy's education. In all cases, however, boys may be required to do the written work, and this practice of itself may prove a saving grace.

One of the most perplexing things to the average pupil is time varieties. My own plan is to continue the practice of a given variety until it is well understood; thus, when half-note varieties are introduced, let all the exercises for several lessons, whether in double, triple or quadruple measure, contain one half note or its equivalent to each beat; and follow the same course with reference to eighth-note varieties. When all varieties are well understood, an occasional blackboard exercise may be written with one half note to the beat; and then successively changed, with scarcely an erasure, to the quarter and eighth-note varieties; the class singing each time, and thus made to realize how the same exercise or tune may be served up in different ways.

SIXTH YEAR.

The specialties of the sixth year instruction are three-part music in all keys and varieties of time; major, minor and diminished triads, and the divided beat. In the practice of triads three divisions are made in the class, each division in turn singing every note of a triad,

and sustaining the chord at the pleasure of the teacher. Three-part music is practised in the same way by class and by choir, each choir now containing three trios. The ambition of the pupils is now to be recognized as a member of some trio.

The practice of triads is by syllable entirely, and is thus made to apply to all keys. A very useful exercise is the numbering of pupils 1, 2, 3, all around the room, each pupil in turn singing the three parts of a triad or exercise.

The divided beat is often spoken of as a difficult principle to teach. I have found an easy solution by using a scale form written in quadruple time, with a dotted half and quarter in each measure. At first sing rapidly with four beats to the measure, and then change to two beats at the same speed.

Up to this time the practice with accidentals has been a matter of ear practice. Having analyzed the diatonic scale and introduced the chromatic, I make use of what I denominate a chromatic memory exercise. I recommend it to the pupils as containing substantially all the accidentals they will ever meet with, and recommend them to practise in and out of school hours, especially with their pianos at home. By constant practice this exercise is committed to memory; although written in the key of C, the pupil is made to realize that it applies equally well to all keys. In my own work I find it greatly facilitates practice with accidentals.

SEVENTH YEAR.

The specialties of the seventh year are four-part music, compound varieties of time and formation of keys. The formation of keys is another name for transposition of the scale. I deem it essential that the pupil should understand how the sharps and flats of the different keys are obtained. For this purpose two staves on the black-board are necessary: on the upper staff a chromatic scale is written; on the lower staff the scale to be illustrated is brought down with reference to steps and half steps, and reasons for the signature made plain. In the dictation practice of this grade the class is told to write in all keys without signature, placing the sharps and flats before the notes affected.

Solo practice takes the form of quartet singing, in which the singers, in most cases, are able to take any part.

EIGHTH YEAR.

The eighth-year practice is a continuation of all that has preceded it, with addition of minor keys and simple forms of modulation.

At the end of each school year I prepare a series of test exercises, both in singing and dictation. The classes are marked excellent,

good, fair, poor, according to their proficiency. The latest examination resulted as follows:—

Number of rooms,	.	.	.	.	.	.	.	.	.	.	315
Marked excellent,	.	.	.	.	.	.	.	.	.	.	189
Marked good,	.	.	.	.	.	.	.	.	.	.	95
Marked fair,	.	.	.	.	.	.	.	.	.	.	29
Marked poor,	.	.	.	.	.	.	.	.	.	.	7
Numbers of stars,	.	.	.	.	.	.	.	.	.	.	10,588
Number of double stars,	.	.	.	.	.	.	.	.	.	.	1,294
Boys, double stars,	.	.	.	.	.	.	.	.	.	.	521
Girls, double stars,	.	.	.	.	.	.	.	.	.	.	773
Number of monotones,	.	.	.	.	.	.	.	.	.	.	600

In all that I have said you will gather that I am a firm believer in theoretical instruction from start to finish.

Permit me, in conclusion, to allude to the performance of a four-part exercise, written by Dr. Parker of Yale University, as a test in sight reading before the Connecticut State Teachers' Association at their annual meeting last October. The class was selected from eighth-grade rooms, and numbered 150 pupils more or less. They first sang each part separately, next the four parts together by syllable, then repeated with the syllable *la*, and concluded by humming the four parts. The audience was supplied with copies of the music to be sung, and was enthusiastic to a degree, at the close. For obvious reasons, my own opinion of the rendition is not solicited. I may be permitted to say, however, that the verdict of music teachers and supervisors present was "a perfect performance."

JAMES M. McLAUGHLIN, DIRECTOR OF MUSIC, BOSTON.

Mr. Chairman, ladies and gentlemen: It is a happy augury for school music when such a gathering as this is brought about through the agency of the State Board of Education, and that for the first time in the history of the Commonwealth the supervisors of music throughout the State assemble at the invitation of its honored secretary, our chairman, Mr. George H. Martin, whose deep interest and earnestness have made such a meeting possible.

It will not, I trust, be considered presumptuous in me to speak in behalf of the teachers of music in Massachusetts, and tender to the State Board of Education, through its representative, thanks and warm appreciation for the important step it has taken this day toward advancing the cause of school music.

The wise limitations placed upon me by the secretary, to speak of what has actually been done and is being done by the supervisory

staff of the department of music of the Boston schools, are sufficient explanation of a paper which, under other circumstances, might be unpardonable for its narrow treatment of the subject. Under such orders nothing was to be done but to present for your sympathetic consideration a brief story of the efforts made and being made to provide sound supervision of musical instruction, particularly since the reorganization of the department in 1900.

Under our present system of education, with its complex course of study, the great mass of teachers is not equal to the task of mastering the science of teaching in its manifold relations to the broad curriculum. It does not follow that because teachers are trained in the principles and methods of a few branches they will then know how to proceed in all branches; for, although the development of knowledge in a general way is the same in all departments of study, the individual features of the different studies require special modifications of general principles. Hence it is that many teachers will continue to need supervision, and in special branches this need is of greater consequence.

Our work with the teachers may be said to begin with them in their incipience, when as pupils in the high schools they announce their intention to study for the normal school. Special attention is now given to normal school candidates during their fourth year in the high schools, in order to better equip them for their normal training. Passing over the course of study in the normal school, which is steadily broadening, we come to the phase of our topic which immediately concerns us.

For years it had been the custom to assemble all the pupils of one grammar grade, and sometimes of two or more grades, in the school hall, where they received instruction from the special teacher, who at the close of the lesson bade farewell to the pupils and teachers for a month or a fortnight, leaving behind him such desultory injunctions as the circumstances permitted or warranted. Under such an arrangement there was, of course, no possible opportunity for the special teacher to observe the individual teachers at work in the classroom, and certainly he was as remote as he could possibly be from the individual pupil. In the primary grades conditions were little better.

The change from hall to room teaching was not effected without numerous arguments on the great advantage of concerted effort, the inspiration of numbers, the healthy rivalry engendered among classes of equal grade, and the like, — all excellent, but they were gradually compelled to yield to the principle that all teaching must take into consideration the rights of the individual. Once the fact was conceded that recognition of the individual was as essential to the true

teaching of music as of all other subjects, and that this recognition was not possible under the existing arrangement, the barriers were gradually withdrawn and room teaching by the special teacher became the rule. This was the greatest and best stride made towards utilizing in the highest degree the great power of the whole teaching force in all the schools.

The next step was to induce the grade teachers to conduct lessons in the presence of the special teacher. While room visitation was hailed with pleasure by nearly all the teachers, they were dismayed when the suggestion was made that they should, in the future, "take" their classes when requested by the visiting teacher. This innovation was not very well received at first, but now, happily, nearly all reluctance has disappeared.

It is almost an impossibility to make certain teachers believe that manifestation of the physical acts of teaching is necessary to intelligent direction. The axiom, "Right knowing is the indispensable prelude to right doing," is only partially grasped by such teachers. The supervising teacher must know by personal observation the power each teacher possesses of expressing in action knowledge of the subject.

"The individual grade teachers differ widely in the degree of their need of such help as the visiting music assistants can give; and they differ, too, in the degree to which they are conscious of such need." This sound doctrine of a well-known educator led to an attempt in 1902 to classify our grade teachers according to estimated need of supervision, and visitations by the supervisory staff were planned accordingly. It was quickly found, however, that those teachers who might safely be exempt from frequent supervision, who could push along their pupils without assistance and to satisfactory results, were the most insistent for frequent and regular inspection by the special teachers; while some teachers who were accorded extra time were quite indignant at the distinction bestowed upon them; and for a while the paths of the music teachers became quite devious and not at all rosy.

Classification on such lines is not calculated to increase cordiality among sensitive souls, so an effort was quickly made to restore the harmonious relations between the supervised and the supervising. Accordingly, comprehensive series of grade meetings were planned and successfully carried out during the winters of 1903 and 1904. To these meetings the grade teachers responded most satisfactorily; but here again the faithful, earnest and successful teacher was constantly in evidence, eager for fresh words of instruction. Perhaps our grade meetings differed in no respect from grade meetings held elsewhere, but they gave convincing proof that there is needed a

systematic course of instruction for teachers desiring to increase their store of musical knowledge.

The truism that the progress of schools in musical matters depends on the culture and enthusiasm of the school teachers, imposes upon those who have charge of the subject of music the high duty of achieving and maintaining this culture, and of arousing and fostering the enthusiasm necessary. The teachers in our department are fully impressed with these high ideals, and at our weekly conferences are constantly suggesting ways and means for improvement in every direction.

One of the first fruits of the reorganization of the department, in 1900, was the publication of printed bimonthly outlines of study for all grades. Each outline is prepared with due regard for the greater number of schools, and naturally after consultation with the department instructors. It includes lists of graded exercises and songs for the different grades, together with timely suggestions. The work allotted to each grade is a definite step in the year's course, planned at the beginning of the year, and embodies successive problems in practice and theory. From these outlines it is hoped that a course of study may be evolved which ought to permanently control the use of text-books, instead of being controlled by them,—a condition with which many supervisors of music are quite familiar.

At the grade meetings the plan and purpose of the outlines were explained, the various points touched upon, useful instruction in tone-production and vocal drill was given, together with practical hints and directions demanded at the time. The plan of instruction to be followed at the meetings throughout the city was mapped out at our weekly conferences preceding each series, so that comparative uniformity and gradation were secured. Special conferences were held with the special teachers having charge of the primary and lower grammar grades, at which the elements of melodic construction were considered, and a few rules formulated to guide the grade teachers in writing simple original exercises. This item is singled out because of its important bearing on our work.

Our aim is the stimulation of the individual teacher toward a better, a complete knowledge; "for right knowledge is the indispensable preliminary to right action, and teaching, the guidance or training of others, is a compound of knowing and doing,—it involves both science and art, the combination of which forms the ideal teacher."

A common obstacle to better results is the indifference or apathy of the regular teacher. This may be explained by the dependence of the regular upon the special teacher, for which the latter has himself to blame. Through a misconception of duty, the special teacher, by excessive active teaching and its consequent emphasis of the imitative

element, oftentimes creates in the grade teacher a narrow spirit of imitiveness, checks inclination to choose, so essential to individuality, and diverts attention from the necessity of mental improvement and active progress. The power of imitative teaching should not be underestimated, but it is a power to guard and to be guarded against.

Another familiar figure is the fully certificated teacher, self-satisfied, trained, maybe, in the college or normal school, who condescendingly listens, placidly attends grade and other meetings, and then remains at a standstill. We have all met them, and it is with such that the supervisor must draw upon his whole reserve stock of patience, skill, tact and strategy.

On the other hand, how often have we met the teachers who recognize their shortcomings, and are anxious to amend their deficiencies. Certainly we extend to teachers of this mould the utmost encouragement, sympathy and help, for from their ranks oftentimes rise our most successful trainers.

How can supervision be made most beneficial? By dealing with the individual teachers, as they in turn should deal with the individual pupils, having in mind all the time the rights of the majority. It is said that the highest object of the true teacher is to train the student to teach himself; and in this sense all real training by the teacher is that which induces self-training in the student.

The grade teachers are the ones on whom the supervisor, as well as the pupil, must rely in great measure for efficient results. They are the strongest factors in the fulfilment of the desired work, controlling, as they do, the repeated action of the pupils necessary to such fulfilment.

The success of the supervisor depends on his ability to enlist the cordial sympathy of his teachers. If his influence lasts only during his visit, then his efforts have been largely in vain. "The tree is known by its fruit," and the supervisor must interest the teachers not only during the lesson, but enthusiasm must be aroused and ambition stimulated so as to insure the continuation of the best efforts of all during his absence. To accomplish this, to win loyalty and sympathy, he must inspire confidence.

It is to be marvelled at that present results in school music are at all obtainable, considering the meagre allotment of time, the wonderful assortment of opinions and tastes to which it is subjected, and other influences far from being generally advantageous.

Leaders of thought in all ages have descanted on the inestimable value of music in education, and yet, judged by the standard of time allowance, it ranks with the lowliest subject in the curriculum. Great as the art is, how many there are who do not hesitate to lay hands upon it and drag it down to the level of their unenlightened judgment and uncultured taste!

These and other disheartening conditions can be corrected, if the teachers of music, responding to the overtures made by the State this day, unite for the sole purpose of advancing and uplifting the art. Let me repeat that the future is bright with hope for all who have at heart the advancement of musical knowledge; for the initiative has been taken by the Board of Education of the Commonwealth, and, after hearing the words of Mr. Martin, we may be confident that it will never recede from the beneficent position it has publicly and voluntarily assumed to-day.

HELEN F. MARSH, STATE NORMAL SCHOOL, WORCESTER.

MUSIC IN THE NORMAL SCHOOL.

When I turn over the pages of the normal school catalogues which come to us from all over the country, I am impressed with the breadth of the course in music proposed in many cases. The biographies of great masters, the study of harmony, the history of music, the interpretation of a few leading classics, composition and analysis, philosophy of education, psychology, the writing of melodies, etc., all valuable and certainly desirable, — perhaps, as I find included in one course, even the study of the best brass-band music.

But my experience in the class-room leads me to think that we are perhaps in danger of looking beyond the most pressing needs of our pupils. First, our pupils need help to realize and really believe that music must be approached and studied as any other subject in the school course is studied; that it must be considered from a new point of view. Up to this time they have been pupils, often passive receivers of instruction; now they face towards teaching, and must become not mere recipients, but sources of instruction. The teaching now prevailing in the public schools of Worcester, under the admirable supervision and direction of the special teachers, has already perceptibly improved the character of our entering classes in this particular.

Secondly, — and this is really included in what I have already said, — we must insist, first and always, not merely upon accuracy, but a habit of accuracy, — an exact, intelligent, conscientious translation of the printed page into melody.

Years ago, at a certain stage of my study of the piano, I became the pupil of a man who stood at the head of his profession, within my horizon. I had long looked forward to this opportunity, and was full of elation and enthusiasm. The first lesson he gave me to prepare was a composition of Schumann's, and I applied myself to the study of it according to my lights. I presented myself with some

complacency for my lesson, and was met by my master with this question: "Well, Miss Marsh, are you prepared to quote Schumann this morning?" That word "quote!" It was like a search-light, and revealed to me, in a flash, passages and measures slurred over, harmonies "simplified," notes omitted or substituted, — all the sins of omission and commission; and my elation was changed into dejection as I took my seat at the piano. But of all the valuable lessons I received from him, that chance question has proved most fruitful; indeed, I have wondered if it was a chance question, after all.

What I mean, then, by "accuracy," might be stated in this way, — the ability to "quote" correctly what a composer has written. Broadly stated, then, these two points seem to cover what the normal school may reasonably hope to do in training its students.

Music at the Worcester Normal School is not optional; no pupil is excused from the class-work, not even the "monotones" being exempt. The study is taken up the second term or half-year, and continues through the course, — three half-years in all. The recitations are thirty-five minutes in length, and the whole time given to the study is divided between the three terms, as follows: three of these thirty-five minute periods a week in the first term, two in the second and one in the last, or senior term. In addition to class recitations, there are also thirty-five minutes a week throughout the entire course devoted to chorus or part singing by the whole school, under a skillful director, Mr. Sumner, of our faculty, who brings enthusiasm and long experience to the work, making it one of the most popular and enjoyable exercises of the school week. The voice of each pupil is tested when she enters the school, and a record is kept of its range, quality, and the part in the chorus to which it is assigned. As in the class-room, no pupil is excused from participating in the exercise, and indeed it is very rare to have any one ask to be excused. The best music only is studied, within the ability of a chorus not selected, and high standards of artistic rendering are presented.

But it is of the purpose of the class-room recitations that I wish particularly to speak. With the first lesson the class unconsciously separates into two divisions, — those who sing, and those who do not and are sure they never can. Since all class work is individual, the "singers" naturally come to the front, and for a little seem to have it all their own way, with an apparent facility that is the envy of the non-singing part of the class. The work in hand is the singing of the scale. There are many sweet voices, and the requirement seems easy.

After a time the tuning-fork is introduced as a means of finding a

new key-note, or some absolute pitch is required. The piano is not used at this stage. The significance of a signature is questioned. At once there is vagueness and perplexity. There is an evident attempt to recall half-forgotten formulas or catchwords. "The signature of two flats indicates the key of B," they may say; and when I shake my head, "Why, I thought—I was taught so—that you could tell—in flats—by remembering the sentence 'Farmers' boys eat apples,' and the second word begins with 'B.'" I have been surprised to find that many of the class have no other conception of the significance of the scale or of its written form. This opens the way to a study of the chromatic scale as the alphabet of written music, and of the transposition of the scale.

A key-note is given, the scale is sung by a pupil, the pitch names of its tones decided and written on a staff with what is now seen to be the necessary signature to represent the key. The constant use of the tuning-fork by each pupil to find a required key-note I find to be a valuable test of the ability to think scale relations. This, and what naturally clusters about it, continues for several weeks.

Already the two divisions of the class are finding themselves at the same level, and in the zeal of learning and expressing something as definite and demonstrable as a rule in arithmetic, the non-singers find themselves falling into line and singing, as a matter of course, and with little embarrassment.

About this time I am interested to see the "singers" of the first few lessons exchange their look of patient toleration of the first efforts of their less fortunate classmates for a look of genuine sympathy,—a sort of prophetic "teacher interest," as a timid, wavering voice gains firmness and texture from day to day.

It is found that the number of "monotones," of those who are really sound-blind, to borrow a term from the study of color, is very small, but even they begin to feel that all is not lost, and that they may render valuable service in some departments of the teaching of music.

Another test follows with the reading and singing of simple exercises. Again the sweet voice often covers what has been charged to the too great use of the brush and color in our school drawing,— "a fascinating inaccuracy." The reading is sketchy indeed,—not so much in pitch as in all that pertains to form or rhythm. The same girl who would learn a sonnet of Shakespeare *verbalim et literatim*, scorning a false quantity in a single line, now takes great liberties with her simple exercise. Notes are changed in value or others substituted, until it is almost without form; and the singer seems unaware that her triple measure limps on two feet or four, and her sextuple measure on five. In some cases I have been ready to

deplore that priceless gift, — a sweet voice, — which has betrayed its owner into feeling that accuracy and precision are thereby made unnecessary. There are always, however, a few pupils in the class who possess all valuable qualities, but it is with the average pupils that our work mainly lies. The remaining weeks of the term are therefore given to individual sight-singing, with special reference to learning to recognize the typical rhythmic groups and time divisions of a measure.

At the beginning of the second half-year the reading takes a somewhat different form. Each member of the class chooses, from any source, a song which she thinks might prove suitable for use in a school. She becomes somewhat familiar with the resources of our library, and exercises some discrimination between the simple music which is genuine, and the simple which is merely trivial and commonplace; some discrimination, I say, for a taste for good music, like a taste for good literature, is a plant of slow growth. This song she sings to the class. She must make herself intelligible, the song being presumably new to every one of her hearers. As I said, she must first make herself understood, — melody, rhythm, words, spirit of the song. They, on their part, must listen actively.

Individuals may be called upon to report upon the song, as follows: one to decide, from the use made of the tuning-fork, in what key the music is written, and to write the proper signature on a staff on the blackboard; another to decide upon the time signature, and to write it in its place. I find that it is at just this point of what we call "time" that the singer most often fails to make herself understood; but any uncertainty is charged to her, and not to the hearer. Another indicates the highest and the lowest tones she hears, thus showing the range of the song; another, the prevailing rhythmic units in the melody. Any chromatic tones that occur are recognized and properly written. The class learns the names of a few composers of the best of these songs, and a list of the songs is kept for future reference. I need not dwell upon the further work of the term.

There is now an interim of a year, in which the normal school girl leaves us for practice, to become an assistant or helper in the public schools of the city. We call her an "apprentice." She tries her hand at teaching music a little, among other subjects. She sees it taught, — skillfully taught by the regular teachers as well as by the special teachers. She sees difficulties met and overcome in original ways; she is surprised to find young children so teachable and facile; above all, she recognizes the weak places in her own preparation, and when she comes back to us for her final or senior half-year, the one period a week is all too short for what she would like to accomplish.

But we cannot hope to reach all of our pupils. In this audience of teachers I need not dwell upon this source of futile discouragement, at times. We are not alone unhappy. Every specialist — and we are all specialists in these days — bemoans, as a matter of course, the insufficient time given to his subject, the apathy of some of his pupils, and the fact that many, after reaching high-water mark in the normal school, drop to their own inevitable level when they no longer breathe its stimulating atmosphere. If we demand that music shall take rank with other studies, we must accept cheerfully all the conditions that accompany other subjects. Some pupils slip through our hands at the normal school who do not spell well or use good English, and the same mental make-up will allow the old careless habits in music to reassert themselves. On the other hand, it is not uncommon for a graduate to write to us gratefully of her enjoyment and satisfaction in teaching music, — the one subject, perchance, which, at her entrance into the normal school, seemed entirely beyond her reach.

FREDERICK E. CHAPMAN, DIRECTOR OF MUSIC,
CAMBRIDGE.

I assume we have come to this institute by the invitation of the honorable State Board of Education, remembering that our own good State of Massachusetts stands pre-eminently above all other States in the Union in its emphatic endorsement of the benefits to be derived from music in the public schools. We come to submit each subject on our program to intelligent judgment, to adjust its share of attention in common with other school studies, and to make decisions on the ground of practicability.

However well or ill devised music is in the grades, when we reach the dignity of the high school there should be a line of demarkation, distinctly separating the schools in this particular, as is the case with other branches of instruction. Choral singing, with due regard to all that goes to make it excellent (and that appears to be the end of what is generally considered a high school music course), can be, and is, more intelligent and effective if stimulated by a knowledge of the elements of harmonic structure. Such a *prima facie* argument is convincing to every supervisor of music, and that is not altogether my reason for speaking of it at this time, but because there may be those present who would shrink at the proposal to introduce the subjects of harmony and counterpoint into their school courses, contending that the subjects were too profound for the average high school students. That these subjects should form a part of every high school curriculum has been my belief for many years; not, however,

as an "elective," but as a required study, substituted for some other study, such as astronomy, civics, etc.

I can see no reason why any young woman or young man in a high school, who has a natural aptitude for music, — by that I mean a keener perception and finer appreciation of the subject than is common, — should not be allowed to take the studies of harmony and counterpoint, and be credited in each on the same basis as any regular subject; and not, against his own wishes and inclinations, be obliged to grind out hours of real labor upon subjects which are distasteful to him, and which will probably form no important part in the economy of his later life.

Again, it is a well-known fact that those who would become teachers in our public schools, especially of our city schools, must be able to teach the elements of musical notation; and therefore a course calculated to cover the requirements has been taught for many years in our State normal schools, but there is no absolute requirement in music for admission to these schools. When I say absolute, I should explain, quoting, it is understood that "applicants who fail to pass in music but do well in other subjects are admitted to the school;" and "it will have to be admitted that quite a percentage of candidates are admitted who are not able to meet the requirements in music;" but it is understood that a candidate who fails in music "would have to make up the deficiency in some way."

A few years ago the question occurred to me, as the majority of the teachers graduating from the normal schools were able to conduct recitations in other subjects than music, presenting impromptu examples for illustration, why should they not be able to do the same with music? Why, for instance, if the room teacher had the problem in the music lesson of a dotted quarter note followed by an eighth note, should she not be able to place before her pupils an exercise, melodically written, containing in a few measures such a problem?

This led me to investigate with the pupil teachers in our training school who were fresh from normal schools. I found none were able to do this, yet they would at once give an excellent problem in illustration of 25 minus 5, thus: "Having 25 cents, you go to a store and buy 5 apples at 1 cent each; how many cents would you have remaining?"

I reasoned that the students who anticipated entering one of our normal schools could, along with harmony and counterpoint, acquire enough knowledge of melodic construction to enable them to invent as good a problem in illustration of certain rhythmic principles as they could in arithmetic.

If the pupils of our high schools who contemplate a normal school training go to that school with a knowledge of the "construction of

scales and of chord formation, and the power to resolve them for themselves," when again we receive them into our schools as teachers we have the very best instructors in music. Teachers will then realize that there is more in teaching music than mere *solfaing*. As one teacher who attended the Cambridge high school, and who had taken harmony and counterpoint, said to me, after she had graduated from a normal school and become a teacher: "I have many times blessed the Cambridge harmony class, and I would not part with the knowledge of harmony and melodic construction I possess for hundreds of dollars. With it and the pedagogical principles and methods I learned at the normal school, teaching music is not to me the 'drudgery' of which some teachers complain. I feel that there is in music more than teaching my children to sing; and a student who goes to the normal school without a knowledge of harmony makes a great mistake."

With deep convictions upon the subject, I asked the Cambridge school committee, in the year 1898, to introduce a course of harmony, counterpoint and melodic construction into the course of the high schools. My request was granted, and the courses were incorporated into the curriculum in May, 1899, as "elective studies," especially recommended to such students of the second and first classes as contemplated a normal school training.

Our initial class, consisting of eleven pupils, — the majority of whom were not intending to enter a normal school, — began in September, 1899, to study harmony, two periods of fifty minutes each week. The following year three of this class, who anticipated a normal course, commenced the study of counterpoint and melodic construction; and a new class, consisting of fifteen scholars, began the study of harmony; and so they go on from year to year.

We anticipate a large entering class each year and a falling off before the mid-year examinations, as many really musical pupils enter in good faith, and, because other studies in which they are obliged to make certain marks interfere (and, by the way, they usually tell me they would rather continue the study of harmony, but it counts them nothing in the first year, as it is considered "an extra"), they therefore need the time usually given to harmony for these other studies.

Our class in harmony this year opened with fourteen members, — two young men and twelve young women. Some were obliged to drop out after a time because of the stress of other studies. The number remaining all anticipate attending some normal school next year. Our students always appear interested, and are rarely absent excepting in cases of sickness. We have a mid-year and a final examination, and the pupils seldom fail to reach 80 per cent. Their

marks are sent home on their term cards for the gratification of the parents and what encouragement the students get out of it, they remembering all the while that it is considered simply "an extra," and redounds to their credit only as progressive scholars. But, I am happy to say, next year, according to our new course of study for the English high school, the fourth-year pupils will be credited in harmony as a substitute for astronomy. This is one move in the right direction, and I hope there will be more to follow.

The requirement of students entering our classes in harmony is enough knowledge of pianoforte playing to read and play at sight an ordinary hymn. As I have intimated, the majority of pupils in the subjects of harmony and counterpoint are young women, though we have had some musical young men as students. I believe the musical proclivity of young men is more pronounced and intense, before they will express it, than with young women; as most young men are apt to think music "belongs to the girls." When, therefore, a young man presents himself in the class of harmony, I am especially gratified, for I feel sure he means all he expresses by his presence there.

Referring to the course of study in music for the Latin and English high schools, as embodied in the report of the superintendent of schools of Cambridge for the year 1902, we read as follows: "Elementary harmony, counterpoint and melodic construction have been introduced as elective studies for the second and first classes, and boys as well as girls having a special aptitude for music are the ones who naturally elect these studies, the only requirement being some knowledge of the pianoforte." "The students are instructed in scale formation, intervals, a logical and comprehensive view of all true chords, in order to give them the power to construct and resolve these chords for themselves." "The study of harmony is carried well into modulation, and of counterpoint through four simple orders or species, including both the major and minor modes."

It is my custom, before the final examination, to give to the class a stanza of a hymn, in long or common metre, and require the pupils to write a melody for it. Each one brings his melody to the class, and, in the light of the knowledge he possesses, it is analyzed, and accepted or rejected. The best melody is then given to the class, and each one harmonizes it and returns it for examination and analysis. The best of these final endeavors is then corrected, and a quartette or semi-chorus from the school sings it before the whole school, for the encouragement of the class and the edification of the school.

In all our lessons we try to see more in harmony than cold blocks of sound, and we do not confine our analysis of chords altogether to their component parts; but rather see in our harmonic structures the continuity of melody in each part, thereby making our endeavors in

the realm of sound have the coherence which makes tonal relationship congenial.

The professors in the music department of Harvard College worked long and hard with the president and faculty before they convinced them that the subjects of harmony and counterpoint were of sufficient importance to be credited in an entrance examination. Three years ago it was decided by the college authorities that these subjects (harmony and counterpoint) might be offered by applicants for admission to the Lawrence Scientific School, each one to count two points out of twenty-six necessary for admission; and that these subjects would be accepted as substitutes for certain other subjects counting the same number of points. The following year it was voted by the college faculty that the same requirements in these subjects should apply to applicants for admission to Harvard College. At the present time the subjects offered by an applicant must include certain prescribed subjects, aggregating eighteen or nineteen points; of the seven or eight points remaining, harmony in the elementary and counterpoint in the advanced course may be offered in the place of elementary physics or chemistry, or in place of two elementary subjects, each counting one point, as anatomy and physiography; or counterpoint in place of advanced physics or history (ancient, English or American), or of a combination of algebra and solid geometry or astronomy and meteorology, the last four named counting one point each.

The Harvard College catalogue also says: "The examinations will be adapted to the proficiency of those who have studied harmony in a systematic course of three lessons a week through one school year. Proficiency in pianoforte playing and the ability to read chorals and moderately easy piano pieces at sight will be required. The work should consist partly of exercises written on figured basses in which all the triads and seventh-chords are to be employed progressively, and partly of the harmonization of simple melodies."

Tufts College also offers the same privileges.

It is the aim of our course in Cambridge to cover as much in one year as is covered by the prescribed examinations for admission to Harvard College (which course I have read), the only difference being that our course requires two lessons a week, while the college examinations prescribe three. This is obviated by the fact that our school year is considerably longer than the college school year, making the average lesson periods about the same. This of course would not be considered if the applicant was able to satisfy the examiners.

I believe, indeed, I am reasonably sure, that there are in the high schools all over our Commonwealth talented boys and girls, whose greed to know music is smothered into inertia by simple neglect; and

we should no longer withhold from them the nourishment necessary for their subsistence at least.

I have proved beyond a doubt that the average pupils of our upper classes—and I would at present confine the subjects of which I am speaking to the two highest classes—are perfectly capable of comprehending all the requirements of the subjects, and should be encouraged to pursue them with the same end in view as with other subjects of the prescribed course. Moreover, I believe the literature of music should be made a part of our school courses, beginning at once on entering the high school, and perhaps before. To be sure, there are now no text-books especially covering this subject and adapted to the purpose; but, if it is understood that such books are necessary, they will be forthcoming.

What excuse have we to offer in case a child while reading inquires of us, “Who was the author of the story?” and “What about him?” if we reluctantly reply: “Oh, he was a great man, and some day you may read about him; be content now, my child, with his stories.” Why should he not be encouraged to read now of the author out of books adapted to his comprehension?

Ah, my friends, our school children are reading stories in sound all the time. If they may also read of the authors and the circumstances of their lives, and learn of the construction of their music and the nature of their sound stories, how much more real will these stories be to them: how much greater the influence derived from the life and works of the authors; and what might we not reasonably expect of the future generations.

I believe, also, that every high school should be provided with either a mechanical pianoforte player or an “orchestrelle,” so that the pupils may hear the best compositions of the best composers; that on regular days there should be given concise accounts of the life of some classic composer, and characteristic compositions performed to mark periods and illustrate the forms of the various compositions.

It is a pleasure for me to acknowledge here the helpfulness and courtesy of the head masters of the Cambridge high schools, and to say it is in a measure due to them that we have a course of harmony and counterpoint. They are each alive to the benefits accruing from the course, and in instances have taken pains to advise students to elect the subjects.

I cannot understand why any master of a high school should say that music in any legitimate form “only introduces a desirable variety,” or “is an occasional convenience.” Such statements force us supervisors of music to the belief that we must not labor altogether with our school boards, for the best school boards are very much influ-

enced by the masters, and that is as it should be; but I think I can safely say that the majority of high school masters are opposed or indifferent to the introduction of technical music into the course, — at least, I found that to be a fact with those with whom I have talked outside of my own city.

I think the time has arrived when we should broaden our course in music, and I believe the place to begin is in the high or so-called secondary schools; then those who have studied the pianoforte during their attendance at the grammar schools will have reached a point where they can be materially aided and remarkably encouraged by the study of harmony. Other studies have helped to develop their mental faculties, making the comprehension of the study of harmony and counterpoint more facile, thus barring the objection of profundity. The mental processes required by the study of mathematics, and especially that part of physics that has to do with sound, will mean ten times as much to a student of harmony, by opening the avenues of his thought and stimulating his ability for investigation. The students of these subjects, with the teachers of music and science, should go along together, knowing each other's work, and from this knowledge more intelligently guiding their own.

I think the classes in the study of harmony and counterpoint should be small, — by that I mean no larger than ordinary classes; and that the recitations should be at least three quarters of an hour long. They can then have the stimulus and encouragement that comes from individual recitation, and time enough to discuss the various points brought up by corrections at the blackboard.

As I stated at first, I repeat, any young woman or young man of our high school classes, having an aptitude for music, should be allowed to take harmony and counterpoint as a substitute for other subjects; that the importance of these subjects should be properly recognized, and that they should count in diploma marks on a basis of other subjects of corresponding importance. Harvard College has decided this for the secondary schools; and I also repeat what I believe is true, — our school boards are not to be blamed altogether for the general apathy regarding present conditions. Some masters say practically “a little music now and then will be countenanced e'en by unmusical men;” it remains for us to break down this barrier of prejudice. Fortunately, we do have some masters and principals who are in sympathy with the movement to introduce a broader course of music into our secondary schools; can we not persuade them to lend us their influence among their colleagues, trusting that “a little leaven will leaven the whole?”

So far as I can learn, Cambridge is the first city in the United States to have formally introduced the subjects of harmony and counter-

point into the high school course. Springfield and Boston have joined the ranks. The masters of the evening high schools of Boston, appreciating the importance of the subjects, have embodied them in their course of study. Two evening schools at least, the Central and Roxbury high, began the course last year with classes that were sufficiently encouraging to continue the course this season, and with increasing interest and numbers.

And, friends, I believe the course in harmony and counterpoint in our secondary schools has come to stay. The conditions now seem inviting, and we who have the direction and supervision of the teaching of music in the public schools of this State are the ones to keep the fires burning until every particle of prejudice against this course of music is consumed. If we are to gather from the generations going and coming the musicians of the future, we must be always watchful.

Truly, men and women great in music are not found at every point; but those who may be great are now with us in embryo, and who are we, to deny them whatever privileges make for their development?

MARY L. REGAL, SPRINGFIELD HIGH SCHOOL.

MUSIC ANALYSIS IN THE SPRINGFIELD HIGH SCHOOL.

The course in music which I have the honor to conduct in the Springfield high school is called "music analysis," for lack of a title more exactly descriptive, or at least more completely understood by the general public. It is properly a course in music, but for many years the term "music" in connection with the public schools has meant the practice of choral singing. If it were called the "appreciation of music," the public, while understanding that the pupils were acquiring no technical accomplishment, would be likely to expect some elaborate literary interpretation of music,—a feature for the most part carefully avoided. And so, because part of our work consists of analysis (as a means to an end), I have adopted "music analysis" as the least misleading title.

But at the outset it should be understood that the term does not mean the same which it would in a school of music. This course is especially designed to be useful to those who have not, and never expect to have, any technical proficiency. Its purpose is to cultivate such a knowledge and love of music as would enrich the mental and emotional nature, just as a knowledge and love of literature or painting or any other of the fine arts does.

In the first place, the object always in mind is to give the pupils a familiar acquaintance with some of the masterpieces of music.

There is no reason why a student of high school age should not wander with delight in the paths of the "Unfinished Symphony," as well as in those of the Forest of Arden; be moved as much by the mighty conflict expressed in the "Overture to Tannhäuser," as by the "Last Judgment;" or learn as easily to perceive the exquisite purity of outline of a Haydn quartet, as the perfect proportions of the Parthenon; and feel the world lament of the Tschaikowsky "Trio" as deeply as the sorrow for Adonais. Culture is a plant of slow growth, and cannot be successfully forced. As in other arts, so in music, constant association with the best that has been thought and said and done in the world is the only means of acquiring culture. From one or two concerts a year, with programs of works difficult to understand or perhaps wholly unfamiliar, how much can an utterly ignorant and untrained listener benefit? This modest high school course is based upon the assumption that two periods a week for forty weeks, devoted to careful listening, with occasional needed explanations and plenty of repetitions, will do something towards supplying this association with good music.

It will at once be recognized that a vast field of music from which to choose lies open before us; but care must be exercised in the selection, or the object will be defeated. The pupils are of various ages, ability and attainments. Handel's "Largo" would move many a pupil who would care nothing for the "Scherzo" from Beethoven's "Third Symphony;" Mendelssohn's "On Wings of Song," transcribed for the piano, has delighted many who were not yet ready for Schumann's "Études Symphoniques." Training both of the mind and the ear is necessary for the utmost enjoyment of much of the best music. To arouse the pupils to a perception that listening involves some effort on their part, and to lead them really to hear, is perhaps the most difficult task laid upon the teacher.

To explore as well as possible the immense realm of musical literature, the course in the Springfield high school has been planned to extend through four years, only two of which, I regret to say, have as yet been given. In the first year a general notion is given of the various kinds of music, the main types of musical form being adopted as a working outline. This gives sufficient elasticity, admitting any kind of illustrations desired. The second year's work is more specialized, being devoted to piano and song literature. The third year I should like, if the opportunity offers, to devote to chamber music, and the fourth to orchestral and choral works. No one of these departments, however, remains unrepresented in the first year.

Let me describe somewhat in detail the plan of the first year's course, for the benefit of those to whom this subject is entirely new.

At the opening of the year I show something about phrasing, usually beginning with some short composition which the class will be sure to like, — for example, a familiar hymn or song; and show how it naturally falls into divisions and subdivisions, how one phrase is contrasted with another, and how one phrase is sometimes repeated; in short, explain the musical structure, leaving technical phraseology to a later date. These easy examples are mostly understood without difficulty, especially when those with words are chosen. From these the transition is easy to simple themes, like the theme of the Schubert “Impromptu in B flat,” or the theme of the Beethoven variations from the “Sonata in A flat.” Many examples are given, and sometimes the design is graphically illustrated on the blackboard.

In all cases the exact title of the composition and the name of its composer are given to the pupils, who write them in their notebooks, and are expected to remember them. This is one of the hard things for the class. They seldom forget whether a given work has or has not been heard in the class-room, but many have great difficulty in remembering what it is, and who wrote it. Here the analogy of the titles and authors of books enables them to see the reasonableness of the requirement. It should be understood that everything is performed not merely once, but many times in the course of the school year.

From the simple song form we go on, studying (not in an invariable order) the various types of dance form, the sonata, the rondo, the fugue, and the variations of these. None of them can be studied in the minute and detailed way suited to the wants of a special music student; but the general principles which underlie musical form are looked for, and plenty of allowance is made for variation from the regular type. If the pupil can once be brought to perceive repetition and contrast, rhythm and modulation, he has a sufficient basis to enable him to listen intelligently, whether he can classify a work exactly or not.

While form is taken as the thread upon which our examples are strung, it is by no means the only quality of music to which attention is called. The “content” of music is, however, so inextricably bound up in its form that there is no considering it apart from its expression. There is no way of expressing music except by musical means. Sometimes words can interpret it more or less by suggestion; but the elaborate verbal interpretations by which the unmusical expect the inner meaning of music to be revealed to them have little value. The object of this course is to help pupils to appreciate music directly.

Occasionally an historical or biographical fact may find an appropriate place in the class-room, but the history of music and the biographies of composers are merely incidental in this scheme. When

the allowance of time is so small, the attention must be centred upon the essential thing, — which is music.

It may be of interest to know some of the works which are played in the class. Here are a few examples of different forms, taken almost at random from last year's notebook of the first-year class: "Theme and Variations from Sonata in A," Mozart; "Menuet from String Quintet," Boccherini; "Cavatina," Raff; "Variations from Quartet in D minor," Schubert; "Nachtstück in F," Schumann; "Sonata Pathétique," Beethoven; "Barcarole," Chopin; "Symphony in B minor," Schubert; "The Eagle," "March Wind," "The Brook," MacDowell; "Overture to Midsummer Night's Dream," Mendelssohn.

The piano is the only instrument available for the class-room. A mechanical piano player would be a great convenience in playing transcriptions of orchestral, quartet and choral works, and would save a good deal of the teacher's time.

In selecting from the vast store of music, two points are to be remembered: first, the music must be good, — must be worth listening to; second, it must give pleasure to the pupils, or the very object of bringing it to their attention will be defeated. I sometimes err in my judgment as to what pupils will enjoy, — indeed, classes vary a good deal; but I have yet to see the class which does not respond to the Chopin "Black Key" étude, or the "Funeral March" from the Beethoven "Sonata in A flat," to select two widely differing examples.

Just before a concert by the Boston Symphony Orchestra last winter we studied the Beethoven "Fourth Symphony" and the Grieg "Peer Gynt" suite, works upon the program which are well known to the musical public, but new to these students. Before the festival in May we studied the "Seventh Symphony," by Beethoven, and other works to be given. In like manner we prepared to hear Harold Bauer play the "Sonata Appassionata," the Schumann "Papillons" and other things. This preparation for hearing specific concerts seems to me one of the most valuable functions of the course.

Soon after the course was begun the necessity was felt of supplementing it by concerts additional to those already given in the city. From time to time we have had programs given by local musicians, without an admission fee. There is no fund available for such concerts, and only rarely can busy musicians afford to give their services. At one of the best of these concerts we gave the Schubert "Trout Quintet" for piano and strings, and "At the Cloister Gate," by Grieg, for soprano and alto solo voices and chorus of female voices. The girls' glee club of the school supplied the chorus, and the accompaniment was arranged for strings and piano.

In addition to such concerts as local musicians could furnish, three or four concerts a year have been given in the high school hall by the

best artists available, the tickets being put at popular prices, and the high school pupils admitted at half price. This has been known as the "High School Course of Concerts," and in it the Kneisel Quartet has played for six consecutive years. We have also had concerts by the Dannreuther Quartet and the Adamowski Trio; and recitals by such pianists as Edward MacDowell, Leopold Godowsky, Harold Bauer and Augusta Cottlow; and by such singers as Marguerite Hall, Gertrude May Stein, Corinne Moore Lawson, Evan Williams, Theodore Van Yorx and others. These names indicate the quality of the programs presented.

The other object of this course, besides the one already described at some length, is to teach something about the elements of music, and various facts more or less related to music but only indirectly connected with one another. For example, since the elements of harmony might as well form a part of the equipment of every well-educated person as the elements of chemistry, we spend a few minutes of nearly every recitation in learning the various chords, intervals and progressions. Sometimes they are played on the piano, and the class tell what they hear; sometimes they are written on the blackboard, and the class name them; sometimes the class write them from hearing, sometimes abstractly, as one would write a spelling lesson. Once in a while musical terms are written on the board, to be explained and remembered; occasionally a list of composers is given. It is desirable that every cultivated person should know many things of this kind, which have little connection with the æsthetic content of music, and which it seems hard to find an opportunity of learning without studying some technical branch of music.

The pupils are supplied with notebooks and music paper, and keep a record of what is said to them in the class, and a list of all the compositions played for them, together with the names of their composers. This is usually copied from the blackboard, that it may be put in proper form and with correct spelling of technical terms and proper names. The work is hampered by the fact that the students make no preparation outside of the class-room; but there is some compensation in not feeling that one is sometimes requiring an unwelcome task. Two forty-minute periods are given to the subject weekly.

The second-year class studies piano works and songs. Sometimes I have given this course from an historical standpoint, studying the composers in chronological order, from Bach to modern times, thus tracing the development of style. This year I am pursuing a wholly different plan. I began with the two composers whose works are peculiarly important among compositions for the piano, and especially characteristic of that instrument,—Schumann and Chopin. Representative works, now of one, now of the other, have been

played. This has given the class a chance to become familiar not only with the particular works played, but with the style and individuality of these composers, and also to compare two very unlike masters. Thus far, since the beginning of September, the works played have been: of Schumann, the whole set of eight "Fantasy Pieces, Opus 12;" "Scenes from Childhood," entire; the "Romance in F sharp;" the "Nachtstück in F;" "Novellette in B minor;" "Papillons, Opus 2;" "Carnaval, Opus 9;" of Chopin, the three Impromptus; the "Scherzo in B flat minor;" many of the Preludes and half a dozen of the Études.

These have been played several times each, and many of the themes have been copied by the pupils. The attention of the class is called to the structure and harmony of the works; their beauties are dwelt upon; characteristic features are noted; comparisons are made between different compositions and between different composers; and, most important of all, the works are played often enough to enable the pupils really to know them.

The members of the class are encouraged to express their opinions and ask questions, to tell what they like or do not like, and why, if they can. Now and then I am rewarded by some original criticism which strikes at the root of things, sometimes discouraged by a lack of appreciation of some beauty which seemed to me perfectly evident.

Just here, for fear you may think that the playing of so many works may be careless and superficial (a very real danger, I admit), I must say that it is my endeavor to have the works as thoroughly prepared as for a recital. The whole object of the study is lost if a wrong idea of the compositions studied is inculcated. This by no means precludes a variety of interpretations; but any interpretation must be wrong which is not based upon a sound general knowledge of music, and a mastery both of the content and the technique of the particular works played.

In all of the classes I mean to avoid rigidity. At any time I take the liberty of changing the plan for a day or a week, for some special purpose; to study a work about to be presented publicly in a notable manner; to study something appropriate to a particular day or season; or even to bring something merely for novelty's sake to freshen the interest of the class, — and the teacher.

The arrangement of the classes is difficult, owing to the fact that the elective studies must be arranged after the program of all the required studies has been settled. Every year many are debarred from the music classes because no period can be arranged for them. This year in the crowded condition of the high school the freshmen have an afternoon session only, in which no provision is made for elective work. A few who can find the time for it are allowed to come

to the morning classes. The classes range in size from ten to thirty members.

In regard to the results obtained by work like this, it is well not to expect too much. Students who are studying some instrument, in addition to their high school studies, find in this course a supplement to their outside study, such as they could not otherwise obtain except in a school of music. It reaches practically all who are studying music in earnest, and most of the rest who have a really musical nature. To others it offers little attraction, being elective, and not contributing to the student's rank or his qualifications for entering college. The element of personal display, which may sometimes weigh in the choice of an elective (drawing, for instance), finds no place here.

A year ago I was curious enough to go over the list of the graduating class of 1903, to see how many, and who, had been in the music classes. Out of the total number, one hundred and eleven, I found that twenty-nine had been in music analysis or harmony, or both, for one, two or three years. Several of these had been in the first-year class of music analysis for two years, because they could not arrange their schedule so as to include the second-year class.

If even a very few students are graduated each year whose love for music has been stimulated and whose taste has been developed, a little will have been done towards raising the level of musical appreciation in the community. If something of this kind could become general, a beginning would be made towards making us a musical people.

L. R. LEWIS, TUFTS COLLEGE.

RÉSUMÉ OF REMARKS, DEC. 10, 1904.

The speaker said that he was glad that he had not written an address, as he would certainly have devoted attention to some things which had been thoroughly treated in the earlier papers, particularly that of Miss Regal. Continuing, he spoke in part as follows:—

I make no attempt to diagnose the situation accurately, but have a general feeling that things could be better. I believe that public school music is the most important of all branches of music study in America at the present moment, and is likely to remain so for at least three generations; hence the serious attention of all educators and musicians should be given to the subject. A great step in advance could be recorded if the recommendation of Secretary Martin could have force everywhere: "But, for the sake of the pupils who would like to cultivate their musical talent, I think that the subject as a serious study should receive more generous recognition, that more

time should be allowed it in school programs, that the training should be more individual, and that credit should be given for it in proportion to the time spent."

I feel justified in interpreting my subject as "School Music from the Standpoint of General Education." In order to discuss it thus broadly, the following subjects might well find treatment:—

1. Art as a factor in American education.
2. Music as one of the sciences.
3. Mental power *versus* technique in art training.
4. The equipment of the public school music teacher.
5. The educational value of good listening.
6. The problem of voice mutation.
7. The goal of public school training in music.
8. The bearing of time allotments on the school music problem.
9. The blight of professional indifference.
10. The patient teacher and the impatient public.
11. Horse sense as a basis of musical taste.
12. Practical phases of the education of the general public in music.
13. Music *versus* talk about music.
14. The fond parent and the musical child.
15. The special teacher and general discipline.
16. The musical "artful dodger."
17. The bearing of text-book fights on the music problem.
18. Will foreign methods work in America?
19. Theorizing and methodizing.
20. Illiteracy in school music publications.

Any one of the above subjects might easily be the subject of a thirty-minute talk, — ten hours in all. Obviously, I can hope to touch only lightly certain points from the above list.

As to time allotments, I have confidence that more time will be given when there is serious and competent effort to teach the subject better. Singing pieces is no more educational than speaking pieces, and intelligent principals know it; yet they in a way contribute influence against betterment. "It is convenient to have a chorus at hand for public occasions," they think, and some of them frankly say, "They make music the slave of the commencement season." From the first of February each year, in many of our schools, the whole musical program is disarranged, with the idea of making an attractive exhibition at the end of the year; in many cases extra and nerve-depleting rehearsals must be held. I maintain that all this should be given an educational trend, or should be incontinently banished from the curriculum.

Much might be said on the corrupting effect of public appearance, when mere show is the goal. Also, attention might be called to the fact that students with musical gifts are much in demand for the

entertainment of others. Good sense and firmness on the part of the principal can do much in the way of amelioration.

The influence of the parent, especially the one who has a friend or relative on the school board, is frequently vicious; witness the mother who upbraided the supervisor for assigning her daughter to second soprano, saying that he must understand that her daughter was "not to be second *anything*." Parents in some cases set up the limits of their own taste, taking for granted that the child cannot possibly have larger musical appreciation than the adult. In this line supervisors often err. I have seen little children get the message of a phrase which the supervisor thought was stupid or insignificant. We must be humble in this respect. The message of music is inscrutable. No one should take for granted that children cannot understand a great theme. Any music is sufficiently understood which has a definite message (though untranslatable) for the individual. But many persons value music in proportion to its efficiency in making them think about something else. Many seize this phase of it as a basis of correlation. The true correlation of music study is perhaps like that of mathematics, only that spirituality and beauty come into play; music teaches one to think clearly, to act quickly, to co-operate intelligently.

There is necessity for higher ideals and better equipment on the part of special teachers; yet I recognize with pleasure the zeal and self-abnegation of many individuals. The dangerous element in the ranks is composed of those who content themselves with barely enough equipment to meet the situation, and those who ride the hobbies of their own devices. Discussions at meetings and between individuals contain chiefly details as to personal peculiarities of method. I believe that much effort should be given toward determining the goal, as well as to computing the amount of time necessary to reach the goal. When this is done, — if it is possible to do it, — the satisfactory methods, of which there will probably be a score, will be easily definable.

The conservation of the educational increment over the period of mutation is an important problem. A contribution to a solution of it has been made by the suggestion that there are other things besides singing which may occupy the attention of the pupil. Here lies the opportunity for the development of the power to listen. In fact, from the beginning to the end of the school course great emphasis should be laid on the cultivation of the hearing. To this end I recommend the general use of automatic instruments. Those who frown on them because they are machines have but a fractional view of the problem; they fail to see the goal of culture in music. Correct presentation of really great works is absolutely essential to general

training in music. There should be an automatic player in every school hall, and the amateur pianist should vanish. It is better to have outward completeness and accuracy in presentation, than much enthusiasm and feeling, with five per cent. of blunders.

We hear much about the baneful influence of publishers. In my experience and observation I think I have seen that the publishers can do little harm if the supervisor is intelligent enough to know what he wants. Publishers will of course try to sell their wares; but they are eager to purvey to intelligent needs. Incidentally, they have done much genuine service in the cause of music. The best method of defeating any baneful influence is to develop sufficient intelligence to detect the bane. The triumphs of "pull" grow steadily fewer; an intelligent and devoted supervisory force can make them *nil*.

I recommend to the attention of all the report of the Conference of the New England Education League on the subject of an elective course in music for high schools. A distinct hindrance to the adoption of such a course is the failure of the College Entrance Examination Board to put music on its list of subjects. We should all use every possible influence to get music recognized as one of the major subjects.

I have spoken of the desirability of making an accurate specification of the goal of school music. By way of suggestion only, I append a statement. In general, such equipment seems to me to prepare a student for what I like to call "citizenship in the republic of art."

THE GOAL OF SCHOOL MUSIC.

In singing at sight: to carry through, without instrumental support, a Mendelssohn part-song, like "Who hath built thee, lovely wood?"—that is, a song of that grade of rhythmical and modulatory difficulty.

To know the oratorio form, as a result of having participated in a public performance of a large cantata or oratorio, such as Haydn's "Creation."

To know, so intimately as to recognize any characteristic dozen of consecutive measures, the following works: one prelude and fugue from Bach's "Well Tempered Clavichord;" one choral prelude and one organ fugue by the same master; one string quartet of Haydn; one piano sonata and one opera overture of Mozart; one characteristic piano sonata of Beethoven previous to Opus 32, and the Second and Fifth Symphonies entire; the "B-flat Symphony" of Schumann; the "Unfinished Symphony" of Schubert; ten songs of Schubert, Schumann, Franz and Tschaikowsky; one nocturne and the "A-flat Ballade" of Chopin; the "Overture to Tannhäuser;" the prelude to "Tristan and Isolde;" "Siegfried's Death March" from the "Götterdämmerung;" and the "Meistersinger" prelude of Wagner; one movement of the Fifth or of the Sixth Symphony of Tschaikowsky.

APPENDIX F.

REPORTS ON SPECIAL SCHOOLS,

INCLUDING

A REPORT ON THE TEACHING OF THE ADULT BLIND
AT THEIR HOMES.

COMPILED BY THE SECRETARY OF THE BOARD.

SPECIAL SCHOOLS.

The Commonwealth provides for children whose physical or mental defects forbid their attendance upon the public day school in the following special institutions, to which eligible persons may be sent in accordance with the provisions of chapter 39, Revised Laws, and upon recommendation by the Board of Education to the Governor :—

1. The American School at Hartford, Conn., for the Deaf, JOB WILLIAMS, L.H.D., Principal.
2. The Clarke School for the Deaf, Northampton, Miss CAROLINE A. YALE, Principal.
3. Horace Mann School for the Deaf, Boston, Miss SARAH FULLER, Principal.
4. Sarah Fuller Home for Little Deaf Children, Medford, Miss ELIZA L. CLARK, Matron and Principal.
5. New England Industrial School for Deaf Mutes, Beverly.
6. The Boston School for the Deaf, THOMAS MAGENNIS, Superintendent.
7. Perkins Institution and Massachusetts School for the Blind, Boston, M. ANAGNOS, Director.
8. The Massachusetts School for the Feeble-minded, Waltham, WALTER E. FERNALD, M.D., Superintendent.

REPORT OF THE PRINCIPAL OF THE AMERICAN SCHOOL AT HARTFORD, CONN., FOR THE DEAF.

To the State Board of Education.

The whole number of pupils in the school for the year ending in June, 1904, was 168. Of these, 65 were supported by Massachusetts, 82 by Connecticut, 11 by New Hampshire, 8 by Vermont and 2 by friends.

The year was one of successful school work. No important changes were made in the lines of instruction or in the methods employed. The same variety of mental capacity is found

among the deaf as among the hearing; but all deaf pupils are seriously handicapped, and when dullness also exists, or when there has been no attempt to awaken the mental faculties of a child until he has passed well into his teens, or even beyond them, the task of the teacher is a very difficult one, requiring for its successful performance tact, ingenuity, versatility, energy, great patience and untiring perseverance. The teacher who secures fair results with dull pupils is fully as worthy of commendation as the teacher who reaches brilliant results with fine minds.

The course of study aims to be practical, including, besides the three "R's," current events, United States history, English history, physiology and hygiene, and physics. Manual training holds an important place. The boys are taught sloyd and cabinet-making. The girls receive instruction in sewing, dress-making, cooking, ironing and some of the lighter parts of housekeeping. There is a constant endeavor to secure mental, moral and physical development, and thus secure a well-rounded character, so that when pupils finish their school course they may be able to sustain themselves, be producers and not consumers, and may become respected and valued members of the communities where they shall live.

During the year 41 girls received instruction in sewing, 12 in dressmaking, 22 in cooking and 6 in ironing; 30 boys were instructed in cabinet-making and 40 in sloyd.

The general health of the school was good throughout the year, and not a single case of serious illness occurred.

Respectfully,

JOE WILLIAMS,

Principal.

REPORT OF THE CORPORATION OF THE CLARKE SCHOOL FOR THE DEAF, AT NORTHAMPTON.

To the State Board of Education.

GENTLEMEN:—The number of pupils in the Clarke School during the last year was 144, of whom 116 were admitted as wards of the State of Massachusetts. The health of the school has been good, with the exception of an outbreak of measles in the winter, when about 40 children became ill and were

unable to attend the regular classes. The school has been in every way successful. I have previously called attention to the need of greater facilities for the work, and expressed the hope that men or women of Massachusetts birth, seeing the great opportunity here for the exercise of the purest benevolence with the certainty of abundant return for the capital invested, would give to this school the expansion in equipment so greatly needed. The sum of \$2,000, through the influence of Miss Rogers, formerly principal of the school, has been received from the estate of the late Robert Charles Billings, and already paid into the treasury, to be known as the Robert Charles Billings fund. The income is to be used for the general purposes of the institution. It is hoped that this example may lead to other gifts, and that ultimately this school may take its place in the hearts of the good people of this Commonwealth as offering an unsurpassed opportunity for the wisest and most bountiful charity.

A graver embarrassment than that of inadequate buildings is now upon us. The increased cost of living and the steady advance in wages for personal service and the decline in the rate per cent. on capital compel the corporators to face a yearly deficit which has already become serious. In a general way it may be said that the expenses for the last year exceed the income by about \$2,600. The income was about \$49,000 and the expenses \$51,569. The actual income is ascertained by deducting from the sum total of receipts in the treasurer's report the cash on hand at the beginning of the year, \$1,519.61; the item of investments, \$1,450; and the Bank of Commerce dividend, \$4,909.51, which is in reality property returned into the treasury. The actual expenditures for the year cover every item reported except the investments, \$5,150. Of the income, about \$14,000 is derived from the permanent funds of the institution. Although certain items in the expenditures are not strictly a part of the cost of care and instruction of the pupils, as repairs and insurance, yet, as essential to the ongoing of the school, and necessary for the proper supervision and preservation of the plant and its funds, they constitute in reality a fractional part of the expense for each pupil. It is perfectly reasonable to divide the entire annual expenses of the school

by the number of pupils taught, in order to arrive at the cost of maintenance and instruction for each pupil. If the year's expenses are thus divided by the number of pupils taught, we find that the cost of each pupil the last year was \$350. As the State pays \$250 for each pupil, the deficiency for each ward supported by the State would seem to amount to \$100. If the number of pupils supported by the State is multiplied by this sum, we have as a result the sum of \$11,600, which is the amount of the cash contribution to the State made by this school during the past year. As the entire income of the fund amounts to a little over \$14,000, we have as a remainder, after our contribution to the State, only \$2,400 for extraordinary expenses and any enlargement found desirable. Whether the authorities of the State of Massachusetts understand the fact that the school is contributing so large a share as five sixths of its income for the deaf children whom the State nominally supports is doubtful. They certainly do not fully appreciate the significance of the fact.

It is possible that the cost of the care and instruction of those children entrusted to other schools is not so great per capita as in the Clarke School. It is probable that a smaller number of pupils must be taught and a larger number of teachers employed for a given number of pupils when the oral method alone is adopted than where other methods are used in part. But the increasing cost of fuel and provisions, the advance in wages and the constant diminution of the return on invested funds, admonish us that this deficit for each pupil is likely to be greater in the future rather than less; and the question arises whether a school that has been so useful and has contributed in the thirty-seven years of its existence more than \$200,000 to the education of the deaf in this State ought not now to receive a larger support from the treasury of the Commonwealth. In other words, is it reasonable that the deficit on each pupil supported by the State should continue to be yearly \$100 or more? Surely no complaint can be made as to the economical administration of the school. The total cost of salaries and wages, divided by the number of pupils in the school, gives \$164 as the amount expended for each pupil. This, divided by the 40 weeks of the school year, gives as the

result something over \$4 per week. At present the payment by the State, amounting to \$6.25 per week, would cover the cost of instruction and all service, and leave \$2.25 as the compensation for food, lodging and the general physical comfort of each pupil. This would give \$90 as the cost to the State of the home comforts and support of each child, making for 116 children a total of \$10,440 as the amount paid for the housing and feeding and keeping in good condition through health and illness its dependent deaf children committed to the school. But the actual cost to the school of groceries and provisions, fuel and light, was, the last year, more than \$20,000. This, divided by the total number of children, 144, gives a quotient of \$139 as the cost of the share of these factors necessary for the comfort of each child. It will be seen that the difference between what the State pays, \$90, and the actual cost for the physical support and comfort of each child, \$139, amounts to nearly \$50, more exactly to \$49, if no account whatever is made of the money invested in the plant, of the wear and tear of linen and furniture, of repairs on the houses, insurance, and the unexpected but necessary outlays. In other words, just about one half of the actual deficit for each pupil supported by the State is occasioned by the simple cost of groceries, provisions, fuel and light.

To the corporators of the school it does not seem reasonable that this loss should continue. As the deficit has now grown to \$100 for each child, and the average yearly deficit which the school meets amounts to nearly \$3,000, and the corporators find themselves often unable to do things very desirable for the advancement of the pupils, they turn to the State, and petition the Board of Education to add \$50 per year to the \$250 hitherto paid for each child.

They are well aware that if this petition is granted it may occasion a demand for an advance in the amounts paid elsewhere for the wards of the State; but it would still be true, if this request is approved, that this school contributes yearly about \$6,000 in money to the support and tuition of the deaf children of the State besides the interest on the investment in the plant, which can scarcely be reckoned at less than \$10,000 per year. Nor does it seem to us that the wealthy State of

Massachusetts ought to regard such an additional payment as a burden. It would have added this year a little less than \$6,000 to the \$29,000 paid into our treasury. But \$34,800 per year would not be a great sum to pay for the proper care and instruction of 116 deaf dependents, inasmuch as the home and playgrounds have been provided by the contribution of a noble citizen without any expense to the State, which has had the advantage without cost of this provision, and also the benefit of the income of a large capital for thirty-six years.

The corporators gratefully remember that, whenever their necessities have compelled them to make an appeal to the Board of Education for an increase in the allowance for each pupil supported by the State, the request has been granted. They do not forget that the amount has been repeatedly increased, — that only four years ago an increase of \$25 for each child was generously voted. They make this new appeal with much reluctance, and after vigorous efforts to secure relief in other ways; but they cannot concede that they are asking more than simple justice in making this new appeal. They freely admit that the generous support given the school by the State has made it possible to claim for it the endorsement of the State and to enlarge greatly the scope and efficiency of the work. But they claim that the confidence and support given them has been amply justified by the results, and that everywhere in the United States and in Europe this school is spoken of with respect, and regarded as an honor to the system of public education in Massachusetts.

In this connection it will not be amiss to introduce a quotation from the last issue of "The Lone Star," the publication of the State School for the Deaf in Texas. The principal of the school, Mr. Blattner, who with nine teachers visited the Clarke School in the spring to take a special course of training, says in the October number that "the ideas gathered up in the schoolroom, shop, chapel and dining room at the Clarke School, and the special instruction received during our month's stay, will be an aid and inspiration to us in the years to come, and will certainly manifest themselves in improved results at this school."

The capture by a graduate of this school the last spring of a

gold medal in the School of Fine Arts at Paris, taken by itself is an honor not merely to the school but to the State which has so generously encouraged the school. But it is not on brilliant achievements like this, accomplished with incredible labor and patience on the part of a deaf boy, and almost equally incredible labor and patience on the part of his teachers, that we would chiefly base our appeal for more generous support. It is on the gladness and joy that the establishment of oral communication between parents, brothers and sisters and the deaf child has brought into hundreds of homes in this Commonwealth, and on the awakened sense of manhood and womanhood that has come to these young persons,—once exiles in the home, but by your support and the devotion of our teachers exalted to a share in the family life and social duty,—that we found our earnest petition for additional aid. And here we would call attention to the fact that in many cases, by the industrial training of this school, boys and girls have been fitted to earn their own livelihood, and, supporting themselves as wage earners by cabinet work, carpentry or sewing, have taken places in the ranks of self-respecting toilers, thus contributing a share, however humble, to the service of society. Nor do we think that the possible incitement to appeals from other sources which the granting of our request might occasion should stand in the way of a favorable answer, if our appeal is in itself wholly reasonable, and if, as we believe, the unique relation between this school and the Commonwealth entitles us to look for special consideration.

All of which is respectfully submitted, for the corporation,

FRANKLIN CARTER,

President.

REPORT OF THE COMMITTEE ON THE HORACE MANN SCHOOL.

The committee on the Horace Mann School present their annual report.

The last school year began Sept. 9, 1903, with 124 pupils, 63 of whom were boys and 61 girls. Twenty-four pupils were admitted during the year and 13 were discharged, leaving at the close in June, 1904, 135, — 68 boys and 67 girls.

Your committee have only words of commendation for both teachers and pupils of this school. They deserve not only encouragement in their efforts to attain to the same degree of excellence in their work as is found in the other public schools of Boston, but they should receive every possible aid toward the accomplishment of this end. In this connection we think it wise to state that the increased attendance since 1890, when the school was moved into its present building, shows the urgent need of considering in the near future the transfer of the school to some point where a larger building may be erected and where suitable yard room may be secured.

In complying with the request of the superintendent of our schools to furnish representative work for the St. Louis Exposition, each teacher in this school made explanatory statements, giving the purpose and plan of whatever she had to present. Some extracts from these are here given, as we believe they will be of interest to other members of this Board:—

MANUAL TRAINING.

A three years' course in paper construction follows the kindergarten training. There are forty models in the first year's course. The articles are constructed from seven-inch squares of gray paper. The models, planned and worked out with great care, are graded principally according to the difficulties of the foldings. The first half are made simply by folding, the last half by folding and fastening with worsted. Scissors are not introduced into this year's work. A few of the models are based upon the circle. Accuracy being the important point in the children's work, great pains have been taken that no model shall be too difficult for a child of this grade. The children take great pleasure in the results of their work, — picture frames, wall pockets, pin trays, button boxes, napkin rings, etc.

The same material, seven-inch squares and seven-inch circles, is used in the second year's course. The first few of the thirty-three models used introduce the new exercise of cutting in addition to that of folding, but require no fastening. The remainder are constructed with laps, and are fastened by means of paste. Here, too, the point of accuracy is made of the highest importance. The models are carefully graded, and still held within the grasp of the pupil.

New material is introduced into the third year's course, — colored four-inch squares, colored four-inch circles and eight-inch light weight gray cardboard mounts. Also, pencil and rule are used for the first

time. A pattern is drawn to measurement on the white side of the colored square or circle. In the earlier courses the guide for cutting was a fold, now it is a line. From the pieces resulting from the cutting the design planned is first laid, then pasted on the gray mount. There are thirty models or designs in this course. Knowledge of the rule and accuracy in measurement are gained. Repetitions of the same measurement never become irksome, since the result each time is a new drawing and a new design.

The two courses in "Cardboard Construction," published by Mr. J. H. Trybom, are followed in the next two years, and his yet unpublished course in the same line in the third year.

The boys on entering the grammar department take up sloyd. It is elective with the girls.

PHYSICAL TRAINING.

The children in the primary and grammar departments of this school have a fifteen-minute period daily for physical training and games. The classes for physical training are usually made up of two or more of the regular classes, which average 10 pupils each, so that a good-sized class of 20 or 30 pupils is formed. The exercises are given in a well-ventilated hall, furnished only with a few chairs. With the primary classes the day's order is usually finished before the fifteen-minute period is over, and during the remainder of the time the pupils are allowed to play some simple gymnastic game, in which each may have a turn.

In the grammar department the instruction begun with the pupils while they were in the primary department is carried on by the same teacher, who has a good opportunity to watch individual development, and to give special attention to such cases of faulty position as need it.

Instruction in simple marching is begun with the lowest grade, and sometimes takes the place of the game at the close of the regular day's order. In the highest grade instruction is given in fancy marching and dance steps, and the pupils are taught the polka, waltz, minuet, etc.

During the pleasant weather of the spring and fall the pupils are taken out into the school yard, where they play gymnastic games which allow greater freedom than those played in the school hall. Throughout the whole period devoted to physical training the aim of the teacher is to give each child as much benefit and pleasure as can be derived from free standing movements.

The admission of pupils speechless and deaf, and who are long past the proper age for beginning school life, — from ten

to sixteen years old, — makes individual instruction for a time a necessity. The teaching force of the school is based upon numbers ; and, as no provision is made for this need, generous friends have during the past year contributed sums which have been used to give out-of-school lessons to several of these pupils, in addition to the daily class-room work. This money was held by the Boston Parents' Education Association for Deaf Children, and we confidently hope that similar gifts may again be intrusted to its care for this purpose during the coming year.

The school has received from Mrs. A. M. Goddard of Brockton, through the Massachusetts Woman's Relief Corps, a chart of the "Declaration of Independence" and an oleograph of the "Origin of the Stars and Stripes;" and we wish to publicly acknowledge these gifts and express our appreciation of them.

We are indebted to a friend of the school for supplementing the customary exercises commemorating the birth of Washington by a talk upon Japan, with stereopticon illustrations.

The Memorial Day exercises were made very impressive and instructive by a visit from two members of the Edward W. Kinsley Post, who gave accounts of personal experiences during the civil war. One of the gentlemen sketched rapidly and artistically upon blackboards various incidents and scenes associated with that period.

We take pleasure in quoting from a report to the superintendent concerning a work, undertaken with his approval, for children in public schools who have defective speech. This work has been carried on without cost to the city.

The offer of instruction to enable children to overcome faulty habits of speech, whether from stammering, stuttering, cleft palate or from whatever cause, was met by a gratifying response. Fifteen pupils, ranging in age from five to sixteen years, come from Boston and neighboring towns, accompanied by parents or members of their families, who were ready to give assistance by encouragement to pupils, if in no other way, in their efforts to acquire correct, fluent speech. Three distinct groups were formed for class instruction, according to the various needs: pupils needing correction of stammering; pupils needing correction of stammering and of defective speech; pupils needing correction of defective speech. In addition, there were two pupils who required individual teaching because of

lack of mental and physical development. In every case the results of the few months' work were such as to warrant a continuance of the instruction during the coming year, and the giving of a more extended notice of it in order to reach others. To avoid all possible danger of interruption to the children's daily school work, Saturday mornings have been chosen as the time for lessons.

Dr. William N. Bullard, neurologist at the Children's Hospital, has for many years given serious consideration to plans for special instruction to children handicapped by faults of speech, and is thoroughly in sympathy with this beginning. He has added a graphophone to the appliances for furthering the work.

As the money for meeting the cost of instruction is already assured, every child who needs help in this special form may have it without expense to his parents.

As the committee on the Horace Mann School, we heartily endorse this work undertaken by its principal, and wish it and her every possible success.

Respectfully submitted,

MARY A. DIERKES.

GEORGE E. BROCK.

FRANK F. ERNST.

WILLIAM T. KEOUGH.

LOUIS SONNABEND.

SARAH FULLER HOME FOR LITTLE DEAF CHILDREN.

FROM THE SIXTEENTH ANNUAL REPORT, MRS. MARY H. COOLIDGE.

In presenting this, the sixteenth annual report of the Sarah Fuller Home, the executive committee take pleasure in recording a year of exceptional well-being. During the twelvemonth 22 children have received instruction, 18 as resident and 4 as day pupils. The parents of the day pupils have moved to the neighborhood for the purpose of giving their children the benefits of the home without the necessity of separation. Eight new pupils have been admitted; 4 have been graduated to other schools; 1 was discharged, owing to mental deficiency; and 2 were removed by the parents to receive medical treatment.

The health of the children has been excellent, even though there have been several among them that were very young. The oldest is six years of age and the youngest a baby of two.

In teaching, the pure oral method is used ; speech, lip-reading, writing, drawing and simple numbers are taught. Speech is developed through the elements, is constantly used to the children and required of them. The progress during the year has been most satisfactory. The older children read the lips readily, execute simple directions, have a vocabulary of several hundred words, have acquired nearly all of the elements, recognize them when written or spoken, and count to ten.

In the kindergarten those lessons which naturally appeal to the eyes are used. These have proved of great benefit in developing the children's sight and observation, — a most important thing for them. This branch of the work has proved most valuable also in developing their powers of concentration and self-reliance. Besides the usual kindergarten methods, special exercises to strengthen the weak muscles have to be devised, and of course much time has to be spent over speech.

And so the work in the home and the life there go on, and, as one studies them, one realizes more and more the wisdom and beauty of the idea with which it was started : that it should be small enough to have "the loving home spirit that unites in one family children of different nationalities, different associations and different ages;" that it should take the children so young that bad habits of sign and voice will not have become fixed, and begin as early as may be to develop self-reliance, observation, self-expression and habits of concentration.

NEW ENGLAND INDUSTRIAL SCHOOL FOR DEAF MUTES.

Treasurer's statement of the receipts and expenditures of the New England Industrial School for Deaf Mutes, Beverly, Mass., for the year ending Jan. 1, 1904 : —

RECEIPTS.	
Donations,	\$1,342 13
Farm produce,	811 17
State appropriation,	2,500 00
Interest,	7 72
	<hr/>
	\$4,661 02
Balance Jan. 1, 1903,	1,391 21
	<hr/>
	\$6,052 23

EXPENDITURES.

Groceries, coal, etc.,	\$2,153 38
Salaries,	1,432 68
Farm account,	1,479 43
Interest and insurance,	38 75
	<hr/>
	\$5,104 24
Balance Jan. 1, 1904,	947 99
	<hr/>
	\$6,052 23

JOHN W. CARTER,
Treasurer.

BOSTON SCHOOL FOR THE DEAF.

To the State Board of Education.

The fifth year of the Boston School for the Deaf closed on June 15, 1904. The number of pupils on the school register at that date was 49, all of whom were residents and beneficiaries of the State. The progress made by the pupils during the year was very satisfactory. Visitors to the school who are competent judges of the work accomplished, such as school teachers, college professors and members of the learned professions, are loud in their praise of the work done since the school was established five years ago. I have every reason to believe that our future work will excel that of the past, as familiarity with the special methods of teaching in schools of this character renders the task more easy for the teachers, who naturally become more proficient each year. This is very gratifying to the members of the corporation, and I trust will be correspondingly so to your honorable Board, whose approval it is our constant endeavor to merit. A visit from members of the State Board of Education will be always welcome and will give encouragement to the teachers, and, I believe, substantiate the above statement as to the progress made by the pupils.

To teach deaf children to understand what is said to them by observing the motion of the lips of those who speak to them is no longer a theory, it is an accomplished fact; it is not merely a science, it is an art. Children who were unable to understand a single word when they entered our school now read with ease from the lips of their teachers, and more or less readily from the lips of others.

With very few exceptions, the pupils of our school and of other schools which employ the oral method can, after a few years of systematic teaching, converse freely with their parents and members of their family, and intimate friends with whose manner of using their lips in speech they have become accustomed. We do not hope to bring about perfect articulation. In exceptional cases deaf children may articulate so well as to make those who hear them doubt that they were ever entirely deprived of the sense of speech; but the absence of inflection, emphasis and modulation in the tone of their voice will soon give rise to the suspicion that they are thus afflicted.

In the time allotted by the State for the education of deaf children a vocabulary sufficient to carry on an ordinary conversation is acquired. The frequent repetition of the same word colloquially impresses both the word itself and its meaning on the minds of the children almost indelibly. Once they learn a word and its meaning, they fix it in their minds by frequent use of it. Sometimes they grasp the meaning of a whole sentence by reading only one or more words from the lips of those who address them. This is very natural. We often understand an entire sentence in a foreign language from a few words whose meaning we know, although it might be difficult for us to translate the whole sentence literally, and much more difficult to parse it. Strict attention, however, is paid to the grammatical construction of sentences in conversation, as well as in blackboard exercises and written composition. The children are obliged to write a letter to their parents monthly, and in these letters the teachers find an occasion to teach them how to write good English. The children's natural desire to show their parents how well they are progressing in their studies prompts them to make of their letters good specimens of English composition.

There are two essential functions of a teacher in all methods of education of children apart from and in a sense superior to the development of the intellect: one is, to prevent as much as possible and to repress at all times everything that is detrimental to good character, such as the petty vices of childhood; the other, to awaken, develop and confirm the better qualities

which are also latent in every child. Here is another additional burden put upon the teacher of deaf children, as this work is done not so much in the class-room as elsewhere. The results, however, are compensating for whatever additional outlay of time, energy and patience is demanded. To teach children to be polite to one another, to do favors for one another, to be docile and deferential to their parents, teachers and elders, is a supplementary part of the education of youth, rivalling the intellectual education itself, inasmuch as it is formation of the character of the children. It is easy to tell hearing children to practise all the virtues enumerated above, and to give them a score of reasons in as many minutes of time why they should do so; but with deaf children the case is different. Each time a child fails in deportment or is guilty of any breach of good manners, it must be taken in hand individually and without delay, and by a long and tedious process be taught to understand the error it has committed and the necessity of amendment in this special case. Sometimes it is necessary to do this in public, before all the pupils, in order that they may all be taught the same lesson in good conduct. In every case an individual lesson must be taught the offender, so as to make a lasting impression and to prevent a relapse into the same fault.

The school sent a cabinet of work to the St. Louis Exposition. The upper part of the cabinet was filled with drawings and work in arithmetic, language and geography from pupils of the third, fourth and fifth grades, and illustrated language and number work from pupils of the first and second grades. Apart from this there were scrapbooks filled with class work, and bound volumes of pupils' daily work in language, arithmetic and geography.

The sloyd exhibit consisted of models made by the pupils of the elementary class and by pupils of the first and second year in sloyd. The models sent by pupils of the elementary class were a pencil sharpener, a hat and brush rack, a stand, a swing board, a teapot stand, a photograph shelf, a spade, a calendar back, picture frames and a postal card holder. The models sent by the pupils of the first year in sloyd were a wedge, a flower pin, a flower stick, a penholder, a tool rack, a bread board, a frame and a coat hanger. The models sent by pupils

of the second year in sloyd were a flowerpot stand, a flowerpot stool, a bench hook, a hatchet handle, a knife box, a cutting board of gum and basswood, a key board, a brush holder, an inkstand and a corner shelf.

The sewing exhibit comprised samplers, showing the various steps in plain sewing, aprons, skirts, a doll's entire outfit, hemstitched handkerchiefs, etc., also fancy doilies and crocheted shawls.

The pupils in basket making sent a very creditable exhibit of plain reed baskets, work baskets, candy baskets, flower baskets and fern baskets, brush holders, and fancy splint and sweet grass baskets. The little ones in the raphia class also contributed, sending raphia baskets, picture frames, birds' nests, book marks and match scratchers.

This year a sixth grade was opened; the course of study is as follows:—

Language.—Work of the previous year reviewed. The advanced work of this year is adapted from Hyde's "Practical Lessons in English," book II.

Arithmetic.—Complete Nichols' "Arithmetic," book II.

Geography.—Work of the previous year reviewed. Frye's "Elementary Geography" completed.

History.—The study of United States history is commenced. Text-book, Eggleston's "History."

Science.—Outline lessons in physiology and zoölogy.

Drawing.—*Representation*: nature study: fruit, branches and budding twigs. Type-forms: ellipsoid, ovoid, cylinder and prisms. Studies of life: pose-drawing and studies of birds. Composition: selection, arrangement, space-filling. Expression: outline, light and dark, color. *Decoration*: historic study: foils, shields, early borders and beautiful units. Nature study: leaves and flowers, arrangements and idealizations. Principles of composition: space variation, oppositions of lines, symmetry. Creative effort: geometric outlines, space-filling, book-covers, textiles. Colors: six leading colors, two tints and two shades of each, scaling of hues. Expression: outline, light and dark, color.

Sewing and Basketry.—These two branches are continued in this grade, the pupils showing marked progress.

In September, 1902, a class in sloyd was opened for boys between the ages of nine and eleven years. Work with this

class was to a certain extent an experiment, the boys being younger than any who had previously undertaken the study. The drawings and models were simpler than those used by the older boys. The models in the course used by this class had been chosen after a careful study of a large variety of children's spontaneous creations in wood, collected by the Sloyd Training School, Boston. During the year the children completed the following models: pencil sharpener, hat and brush rack, stand, swing board, teapot stand, photograph shelf, spade, calendar back and picture frame. The tools used were the pencil, rule, jack-plane, bench hook, splitting saw, try-square, bit brace, drill bit, back saw, hammer, nail set, centre bit, half round file, pencil compasses, turning saw, spoke shave, screw-driver, cross-cut saw, knife, countersink and compass saw.

The children worked at first from the model and working drawing prepared for them; later, they were required to make simple drawings of the model and to work from these drawings. The woods used were pine, whitewood, black walnut, gum and cedar..

The finished articles represented strictly the children's own efforts, and gave great satisfaction to all interested. Work will be continued with these children during the coming year; and we look forward to good results not only in increased mechanical skill, which is indeed only a lesser aim in sloyd, but also to increased self-reliance, generosity and perseverance, which may and should be fostered to a great degree in the sloyd room.

His Excellency the Governor of the Commonwealth, His Honor the Lieutenant-Governor, the executive secretary, the private secretary of the Governor, the clerk of the State Board of Education and three members of the Governor's Council visited the school officially on the 4th of May, 1904.

The school opens on the second Wednesday of September and closes on the third Wednesday of June.

THOMAS MAGENNIS,

Superintendent.

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

M. ANAGNOS, *Director*.

The total number of blind persons connected with the Perkins Institution at the beginning of the present year, Oct. 1, 1904, was 285. Of this number, 163 were in the main school at South Boston, 106 in the kindergarten department at Jamaica Plain and 16 in the workshop for adults. A further division gives the following results:—

Pupils in the boys' department,	74
Pupils in the girls' department,	76
Children in the kindergarten,	106
Teachers and officers,	10
Domestics,	3
Beneficiaries of Massachusetts:—	
At beginning of year (Oct. 1, 1903),	165
Admitted during year,	22
Discharged during year,	21
At present time,	166

The close of another year finds the school in a prosperous condition, which speaks eloquently for the admirable administration of its affairs. It has been a period of successful effort on the part of both teachers and pupils, and of corresponding mental, moral and physical growth. Every department of the institution has maintained a high standard of scholarship, and the achievements of the students in every branch of the curriculum show the school to be in as satisfactory a state as it has ever been heretofore. The health of the pupils has been uniformly excellent, and no untoward circumstances have broken in upon the quiet regularity and that freedom from interruption which permits steady progress along every line. The course of study has been established on a broad and far-reaching basis, so that, to whatever subject a pupil may wish to devote himself later, the symmetrical development of his mind is secured in his younger formative years, to his permanent benefit.

The trustees have thus reported upon the present condition of the school:—

We are glad to be able to state that during the period of time covered by this report the school has been managed with assiduous care and commendable efficiency, and that the objects for which it was

established have been pursued with constant diligence and gratifying success.

The teachers and other officers have performed their respective duties with zeal and ability; and have worked sedulously and harmoniously to promote the interests of the institution.

The pupils have been industrious, attentive to their studies and other tasks and obedient to the rules and regulations. They have moved forward from day to day throughout the year with steady step and in perfect order.

The system of instruction and training pursued at the institution has been carefully readjusted and improved of late years, and, as it now stands, it is broader in its scope and more comprehensive in its requirements than it has been heretofore. Its main object is to develop the physical powers and cultivate the minds and hearts of the pupils, and to bestow upon their intellectual, moral and æsthetic natures that attention which will conduce to their highest perfection.

The director has thus summarized what has been done in the literary department:—

The instruction in the different subjects taught in the school has been given to the pupils in such a way as to attract their attention, awaken their interest, appeal to their sympathies, foster their taste for scholarly attainments and discipline their mental faculties. No efforts have been spared on the part of the teachers to lift the students out of themselves and bring them into contact with the world around them as much as possible, to supply them with means of gaining a knowledge of living things and not to chain them to the contents of text-books, and to enable them to acquire information through their own exertions.

Special stress has been laid not upon an accumulation of facts nor on the mechanical process of gathering miscellaneous desultory information, but upon the increase of the power of volition and on a thorough development of the capacity for observing carefully and perceiving readily, for investigating diligently and choosing intelligently, for thinking rightly and judging correctly, for imagining sanely and acting efficiently. Briefly speaking, we have insisted upon opening for our pupils a clear and wide outlook. The legitimate result produced by this course is an open, eager and sympathetic mind, with faculties sharpened and strengthened by observation and experience, by literary discipline and scientific training.

The director says, of the work in music:—

Whether it is viewed from an educational or from an æsthetic or ethical standpoint, music is of inestimable value. It is one of the

most important elements of culture and one of the principal promoters of good morals. For this reason music holds a commanding place in our school curriculum, and the institution affords an unsurpassed combination of advantages for its study and practice. The work is carried on in the best of quarters, under the supervision of a corps of well-trained and efficient teachers, in an atmosphere which is pre-eminently artistic. The instruction given to the pupils in vocal and instrumental music is of the most thorough character. Our aim is to provide the blind of New England with the means and opportunities for that broad and substantial musical culture which is much more than the mere ability to sing or to play on one or more instruments.

The importance of physical and manual training is fully recognized, both as a means of education and of relaxation from close mental application. It is evident that no intellectual alertness can be expected from those whose constitutions are enfeebled and whose muscles are weak and flabby. Therefore, a thorough and systematic course of training in the gymnasium is designed to meet the corporeal needs of the pupils, to correct all physical defects so far as this is possible, and to supply the vigor or energy which shall manifest itself in their mental activity.

To these sightless pupils, to whom the world must be interpreted through the medium of their finger tips, firm, muscular hands, with nerves keenly alive to every impression and instantly responsive to touch, are a prime requisite. In order to secure this receptivity, manual training is found to be an absolute necessity in the case of these boys and girls. From the time of entrance at the kindergarten to that of graduation from the main school, in one form or another, it is included in the curriculum, leading the pupil through a carefully prepared and well-graded course, in which the principle of combining manual exercise with mental action is carried out in a most satisfactory manner.

As every pupil in the school is required to take a full course in manual training, it is necessary to have nine instructors at the school in South Boston and three at the kindergarten in Jamaica Plain, who devote themselves to the several branches included under this head. The little kindergarten children begin with the sloyd system of knitting, crocheting and sew-

ing, from which they advance to wood work. At this point they are usually promoted to the school in South Boston, where all these branches are well developed and where the pupils are classified according to their accomplishments. After completing the thorough course in wood sloyd, they progress in various directions. The girls continue their work in sewing through its various ramifications, until they reach the point of drafting the pattern for an article of dress, estimating correctly the requisite amount of material and making the entire garment. The boys turn their attention to the caning of chair seats and later to the making of mattresses, to weaving and to upholstery. The art of tuning is another subject which belongs properly to manual training, although some degree of musical taste and knowledge is a necessary concomitant. Twenty-five pupils were enrolled in this department last year.

The kindergarten department of the institution, at Jamaica Plain, has become a prosperous organization in itself, embracing four households. Here the little sightless children acquire their first experience of school life under the happiest and most beneficent auspices. The thorough training which their tiny hands receive by means of the gifts and occupations, embodied in Froebel's system of education, is of the greatest value to them throughout their lives. Indeed, it is always a most serious loss to a blind child to be deprived of this excellent feature of his school days. From the employments of the kindergarten a little student is promoted to the regular branches of a common school education, and before he leaves the primary department at Jamaica Plain for the main school at South Boston he has laid a good foundation in elementary studies, which will stand him in good stead in all his advanced work. He has also begun the study of music, and, if he has shown talent in this direction or even manifested intelligence in his work, he soon takes his place as a desirable member of the famous orchestra of which the institution is so justly proud.

The four deaf-blind pupils, Elizabeth Robin, Cora Crocker, Marion Rostron and Thomas Stringer, each provided with a special teacher, are installed as members of classes at South Boston, the last-named having been transferred from Jamaica Plain to the parent school at the beginning of the present

school year. These students share to the full the duties and interests of those with whom they are associated in their daily lives, in the schoolrooms and in the households in which they make their homes. They are expected to maintain without concession their places in the classes to which they are assigned, and in this they are usually successful. Elizabeth Robin, who is much farther advanced in her studies than the other two girls, does good work in her classes, and utilizes her leisure hours in the best possible way.

To Thomas Stringer the year is bringing many new experiences, which he meets with keen and unquenchable interest. Placed in the higher grades and living with companions of his own age, he feels himself a man among men, and is eager to acquit himself creditably amid his novel surroundings, to which he is fast accustoming himself and in which he is very happy. He receives unceasingly kind attentions from his devoted schoolmates, and never is he at a loss for companionship or for a helping hand. In a financial sense the latter has always been and will ever be an absolute necessity, in order that he may be supplied with the means for the further advance and development which he craves. In the past he has been blessed with many friends and helpers, who have been constant in their remembrance of his needs from year to year; but death has decimated their ranks, therefore the need for new benefactors is an ever-present one. This unfortunate lad is struggling bravely to rise above the sullen clouds of affliction under which he is placed by the sinister hand of fate, and it is earnestly hoped by those who have his welfare at heart that his claims upon his fellow men for continued assistance will be neither forgotten nor neglected as the years of his splendid endeavors and achievements go by.

INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES.

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND,
SOUTH BOSTON, Dec. 31, 1904.

To the State Board of Education.

The work in behalf of the adult blind, undertaken in accordance with the act of the Legislature of Massachusetts and with the full cognizance of your Board, has been pursued with assi-

duity and crowned with satisfactory results. As it may now be considered to have passed the experimental stage and to be fairly embarked upon an established line of policy, little that is novel can be reported of the year's efforts; but the steady, painstaking, self-effacing zeal of the teachers engaged in this field of labor is worthy of commendation, and has left its trace in the brightened lives and revived interests of the blind pupils who have received their inspiration through this means.

The efforts for the benefit of these unfortunate persons are directed first of all to the breaking down of the barriers, imposed by the loss of sight, between the outer world and the victims of this terrible calamity, and to the overcoming of the timidity which hedges them about, hampers their every movement and deters them from taking the initiative in any endeavor. The plan of instruction permits individual attention to the needs of each pupil, varying as these do in kind and degree, and close study of the best methods for accomplishing the end in view.

For this purpose the teachers make regular visits to each blind person in their charge, giving him systematic instruction, encouraging him in independence and self-reliance, and seeking to inculcate that persistence and love of hard work which shall lift him by sheer force of will over the encompassing obstacles and into a glad sense of his own ability to achieve.

It is undoubtedly true that the difficulties which stand between the seeing and the blind, effectually separating the latter into a class by themselves, are more apparent than real: but the hardest thing is to make them realize it. The first impulse, upon being confronted by the terrible fact of never-ending darkness, is to sink under the blow and give up all the interests which have hitherto made life worth living. In reality, in many cases, by dint of some patient, courageous readjustment and the kind but unemotional co-operation of those among whom this readjustment must take place, accustomed pursuits may still be carried on, though with less speed, it may be, and with some hardships inseparable from the loss of the visual sense. If this valuable lesson can be learned as the outcome of many hours of labor spent in conquering tasks through the finger tips which were once so easily accomplished by aid of the eyes, the end of this work may be said to have been gained.

While its aim is to make the learners helpful to themselves and others, and as little burdensome as possible to their families and to the communities in which they live, we cannot hope to make them self-supporting save to a very limited extent. Conditions are rarely such as will admit this possibility, and the attitude of these blind pupils of mature years precludes the attainment of this object and relegates it to a position of secondary importance.

The mission which it can and does gladly perform is to act upon its beneficiaries as an uplifting influence, an agency to inspire them with courage and renewed hope, to breathe into their hearts the spirit of earnest endeavor, and to open to them afresh the solace of literature and the kindling power of the best thought of the world.

That belief in the beneficence of this work is not without foundation, is shown through many messages of appreciation, from which we select a few, expressive of the gratitude invariably felt not only by the pupils themselves but also by the members of their families or by friends.

One who has known what the loss of sight means to its victims writes as follows:—

DEAR SIR:—I have often thought of writing to you, to tell you how much I appreciate the work that the State is doing for the adult blind. I have been blind almost seven years, and could not read for several years. It was very hard for me, for I had been a great reader before I became blind; but a year ago last fall I commenced to learn the Braille, and have learned the four systems, besides other things. I am learning to write Braille now. I have read nineteen books through, and am reading the twentieth now. I am delighted with the reading. It seems as if I had come into a new world since I learned it. I am also learning raised music, which is very interesting. . . . I have found a text in the Bible which I think was written especially for me. It is this: “I will bring the blind by a way that they knew not. I will lead them in paths that they have not known.” I have found that true in my case.

Yours truly,

M. L. C —.

The wife of one of the pupils said to his teacher:—

I have read hours to my husband, since he lost his sight, when my mind was so occupied with thoughts of the family duties which were

being neglected, and the work which was accumulating while I was reading to him, that I actually got no sense whatever of what I was reading. Now it is difficult to get him to listen to reading. He works away all day at his chairs, when he has them, and otherwise at his baskets; and many times he works evenings as well, so that I have had to read the riot act to him, for I tell him that he is breaking up all the family sociability by staying off by himself so much of the time.

This tribute comes from a devoted daughter, after the death of her sightless mother:—

I want to thank you; indeed, I feel as if I never could thank you enough for all that you did for my mother. You made the last years of her life very, very happy, and she always looked forward with such pleasure to her lesson hour. She suffered no pain in her brief illness, but was so tired all the time. A few hours before she died she said: "I don't think I shall try to learn that Braille, would you? It is too hard, and I am too tired."

Assistance through this work has been diffused as widely as possible under the present limitations, but we have been unable to extend it in many directions in which such extension would be highly desirable. The funds available for carrying out the plans are used with the utmost care and economy, and are made to cover as broad a field as possible; still, many calls for aid come to the teachers which must remain unanswered for the present, because the financial resources at their command will not permit them to respond promptly to all applications. The principal teacher has thus laid stress upon the need of a larger appropriation:—

I wish to speak of the greatest difficulty with which we have to contend, and I hope that I may be able to show so plainly what a hindrance it is to the highest efficiency of the work that those who have it in their power to do so may be constrained to remove this obstacle, so far as may be possible. I refer to the insufficiency of the amount of money appropriated for carrying on this work under existing conditions.

Certainly our thanks are due to the State legislators for their liberality toward this enterprise. Beginning with \$1,000, appropriated as an experiment in 1900, they increased this amount to \$3,600 in 1901, and again to \$5,000 in 1902, at which figure the appropriation still

remains, showing conclusively that their interest in the work has risen in proportion to their knowledge of it. Believing this to be true, I shall endeavor to show how great the need is for an immediate increase of the present provision, by proving how we are hampered in the performance of our duties by the lack of sufficient funds.

In the beginning we had to seek out our pupils before we could take any steps to teach them. There being an accumulation of many years, we were able to find a sufficient number of students within a small radius to keep us busy, and so it was possible for us to accomplish our task at a comparatively small cost. As a knowledge of the work has spread more generally throughout the State, applications have come faster than we have been able to fill them, and we have been obliged to extend our visits over a much larger area, so that the expense is necessarily greatly increased. This must continue to be the case as our work grows so as to cover the whole State. Thus far only a small section, extending through the middle of the State east and west, and the south-east portion, have been at all thoroughly canvassed, the whole northern and south-western districts remaining comparatively untouched. Owing to the distance of these sections from the centres and to their relative inaccessibility, the work in these localities can only be done at a greater cost. By this it will be seen that the most expensive part of our labor is still before us.

Thus it is evident that, unless the work is to be greatly curtailed and kept within very circumscribed limits, thereby depriving of its benefits many who, as citizens of the State, have an inalienable right to them, its financial support must be increased from time to time as the exigencies of the case demand; and it would appear from present conditions that such an exigency is now upon us. The fact that we have been obliged to choose between extending materially the summer vacation or cutting down the work one day per week during the last four months of the year, in order to keep within our appropriation, shows conclusively the urgent need of an immediate increase of funds.

The teachers are heartily interested in their work, and desirous of performing their full duty to the very utmost limit of their ability; and it will be a source of grief to them if they are obliged to do less than they are able; as will surely be the case unless an increase of the appropriation, for which this statement is a plea, is granted.

Believing thoroughly in the truth of this representation and in the necessity for means for the extension of the work, we reiterate the plea that a larger amount may be mentioned in the request for an appropriation by the Legislature this year.

Any sum placed in our charge for this purpose will be expended with rigid adherence to the principles laid down as the foundation of this work, and every cent will be utilized for the best possible advantage of the adult blind of Massachusetts, in whose behalf this beneficent movement has been instituted.

Statistics.

Number of blind persons visited, 109; number taught, 62; number refusing instruction, 47. Number receiving instruction: in the several systems of reading, 126; writing, 41; sewing, 12; knitting, 22; crocheting, 5; use of the sewing-machine, 6; musical Braille, 2; playing upon the violin, 1; tuning pianofortes, 2; reseating chairs with cane, pith or splint, 36; basketry, 11; braiding rugs, 1; household work, 2. Amount of money earned by the pupils, \$304.10. Summary of work done by the teachers: calls made, 775; lessons given, 1,889; miles travelled, 47,707.

All of which is respectfully submitted by

FRANCIS H. APPLETON,
WILLIAM L. BENEDICT,
WILLIAM ENDICOTT,
PAUL REVERE FROTHINGHAM,
CHARLES P. GARDINER,
N. P. HALLOWELL,

J. THEODORE HEARD,
EDWARD JACKSON,
GEORGE H. RICHARDS,
WILLIAM L. RICHARDSON,
RICHARD M. SALTONSTALL,
S. LOTHROP THORNDIKE,

Trustees.

REPORT OF THE SUPERINTENDENT OF THE MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED, WALTHAM.

I hereby submit the following annual report for the year ending Sept. 30, 1904:—

	Males.	Females.	Totals.
Number present Sept. 30, 1903,	482	318	800
Admitted during the year,	65	35	100
Whole number present,	547	353	900

	Males.	Females.	Totals.
Discharged during the year,	24	11	35
Died during the year,	10	8	18
Number present Sept. 30, 1904,	513	334	847
Average number present,	489	326	815
School cases admitted,	36	12	48
Custodial cases admitted,	29	23	52
Private pupils now present,	30	18	48
Massachusetts school beneficiaries,	175	81	256
Custodial cases supported by State,	97	65	162
Custodial cases supported by cities and towns,	182	152	334
Beneficiaries of other New England States,	20	12	32
Applications for admission during year,	-	-	240
Number at the Templeton colony,	127	-	127

Of the 100 admissions, 31 were young, teachable pupils; there were 16 females over fourteen years of age; 8 were juvenile epileptics; 8 were paralyzed; 10 were very feeble, physically; 3 were insane, and were taken away by their friends; 2 were blind.

Of the 35 discharges, 9 were kept at home for various reasons; 1 was kept at home to attend public school; 6 New England beneficiaries were withdrawn to make room for younger pupils; 4 insane boys were taken home by their relatives; 4 boys were taken home to work for wages; 3 boys, pronounced moral imbeciles, ran away and were not returned; 1 girl of seventeen was abducted by her relatives; 1 girl, a moral imbecile of seventeen, was taken away by her guardian, to be committed to Sherborn Reformatory as a stubborn child; 1 was taken away by overseers of the poor; and 1 boy was killed by a railroad train while away on his summer vacation.

There were 18 deaths during the year, — less than 3 per cent. of the average number present. Of these, 3 resulted from organic heart disease, 3 from acute pneumonia, 2 from epilepsy,

2 from organic brain disease, 2 from pulmonary tuberculosis, and 1 each from acute miliary tuberculosis, pyæmia, intestinal obstruction and acute gastritis.

The general health of the inmates has been excellent throughout the year. With the exception of a prolonged series of cases of mumps, there have been no cases of infectious or contagious disease among our inmates.

There were 240 applications for admission during the year. Of these we were able to admit only a small number, the majority of the admissions being applicants of former years who have long been on the waiting list.

The parents of these children pathetically plead for an opportunity for the training and education of their children while they are young and capable of improvement. It is a striking fact, however, that the reason for the great majority of the applications is based upon the relief needed for the mother, the family or the neighborhood, with the prospective educational benefit to the child himself as a secondary consideration.

The great majority of these applicants are the children of parents in moderate or straightened circumstances. Few laboring men or mechanics or small farmers are able to pay any appreciable rate for the care and education of the defective child without depriving other children of proper food or clothing or opportunities for ordinary education. These cases can be trained or cared for only at public expense in some form. A very large proportion of our applicants expect the State or the town to assume the cost of the future support of the child. If State support should be extended to the feeble-minded, as is now done with the insane, the number of applicants would be greatly increased.

The current expenses have amounted to \$150,453.49, or \$3.53 per week for each inmate. This per capita cost is a little higher than usual, for several reasons. The average price of standard supplies for the institution has been much higher than for many years past. The long, severe winter caused us to use a large amount of coal. The extensive alterations and additions to our service plant necessitated various unforeseen expenditures, not properly chargeable to the new construction. At the new coal trestle we have a stack of over 2,000 tons of coal, paid for out of this year's account. We have also added

four outside hydrants for fire protection, with the connecting water mains.

In our school and training classes we have an unusually able and enthusiastic staff of teachers in every department. We have everything needed in the way of appliances and equipment. Our school department, as a whole, was never so well organized as at the present time. The pupils in the various classes have shown definite and satisfactory improvement.

The new manual training building is completed and in use. On the basement floor are the shops for the repairing of shoes, furniture, etc. On the first floor are the sloyd class-room, the class-room for general manual training, a small printing office, and the room for band practice. On the second floor is the girls' class-room for beginners in needlework, darning, mending, etc., and the large sewing-room. These new class-rooms are well lighted and ventilated, and give us fine facilities for carrying on this most important feature of our work.

Here at Waltham and at the colony we have had eleven new buildings, or additions to buildings, under construction during the year. These building operations have greatly added to the duties and cares of the entire staff; and it gives me great pleasure to testify to the willingness and fidelity which the officers and employees have shown in meeting these extra responsibilities, in addition to the regular work of the institution. Without this co-operation it would have been impossible to complete our buildings within the sum appropriated. Our regular force of employees and our splendid corps of working boys have excavated the basement, dug and teamed stone for foundations, dug trenches for sewer and water pipes, mixed concrete, cut and handled pipe for the steam fitter, done all the painting and varnishing inside and outside the buildings, graded around all the buildings, and teamed much of the building material. The educational value of this constructive work for our boys has been very noticeable. One big, strong boy of twenty, for years destructive, idle and vicious, has worked with the steam fitter for over a year, cutting and threading pipe on a machine as well as a skilled mechanic would do it, and doing a full day's work every day.

The farm colony at Templeton is one of the most successful

and satisfactory departments of the institution. The three groups of farm buildings now accommodate 128 adult, able-bodied male inmates, who lead a natural, happy, country life, with a minimum of restraint and all the liberty they can properly use. They are kept busy with the farm work, the development of the estate of 2,000 acres, and the rough work connected with the construction of new buildings. This year they have excavated the basements for the fourth group of farm buildings, teamed the stone for the foundation walls, made trenches for water pipes and sewer, and dug a fine well for a water supply.

This year we had about 50 acres under the plough. We had 21 acres of corn for ensilage and fodder, and 20 acres of potatoes. We shall harvest over 2,000 bushels of potatoes, 800 barrels of apples, and other bountiful crops, all used as a part of the food supply of the institution. The products of the farm not used at the colony are shipped to the home school at Waverley. The boys picked and sent to the school over 1,000 boxes of blueberries. The fruit and vegetables from the colony have enabled us to make the inmates' dietary much more varied and palatable.

The bread for the colony is baked at the school at Waltham and sent to Templeton in barrels. These barrels are filled with fruit and sent back to the school. The freight charge for a barrel of bread is less than the cost of an empty barrel at Templeton.

We are developing a fine herd of milk cows, and within a few years we expect to supply the school at Waltham with pure milk, raised on our own farm largely by the labor of our boys. The old, worn-out farm land is being gradually ploughed and put under good cultivation. The boys are kept busy all the time. They are rugged and stalwart, and full of life and good humor. They are the happiest class of our inmates. Farm work, under homelike conditions, is the ideal occupation for this class of defectives. The fourth group of farm buildings will be ready for occupancy within a few months.

Respectfully submitted,

WALTER E. FERNALD, M.D.,

Superintendent.

APPENDIX G.

REPORTS OF
SUPERINTENDENTS OF COUNTY TRUANT SCHOOLS.

COUNTY TRUANT SCHOOLS.

County Truant Schools of the State. — The following table gives a list of the different county truant schools in the State : —

COUNTY TRUANT SCHOOLS.	Location.	Superintendent.
Essex,	Lawrence, . . .	W. Grant Fancher.
Hampden,	Springfield, . .	Erwin G. Ward.
Middlesex,	North Chelmsford, .	M. A. Warren.
Norfolk, Bristol and Plymouth,	Walpole,	James H. Craig.
Suffolk, — Boston Parental, . .	West Roxbury, . .	D. P. Dame.
Worcester,	Oakdale,	F. L. Johnson.

The counties of Barnstable, Berkshire, Dukes, Franklin, Hampshire and Nantucket are by law exempted from maintaining truant schools of their own, but the county commissioners of each of these excepted counties are required to avail themselves of some existing county school as a place of commitment.

The following statement shows the number of different persons in the truant schools for their last school year : —

COUNTY TRUANT SCHOOLS.	Number at beginning of the year.	Admitted.	Discharged.	Number at close of the year.
Essex,	37	28	24	41
Hampden,	34	36	28	37
Middlesex,	136	83	98	121
Norfolk, Bristol and Plymouth,	42	36	38	40
Suffolk, — Boston Parental, . .	234	195	181	214
Worcester,	42	26	24	44
Totals,	525	404	393	497

ESSEX COUNTY TRUANT SCHOOL, LAWRENCE.

W. GRANT FANCHER, *Superintendent.*

The past year has been one of steady progress. Many improvements have been made in the building, the most important being in the schoolroom, which was completely remodeled and better ventilated. More blackboard space was also added. New book cases have been put in for the library, many of the old books removed and new ones added. A coal shed of sufficient size was erected.

Several changes have been made in the curriculum. The boys have done surprisingly well in their school work, giving close attention and showing a great interest in all of their studies. The same willingness is manifested in all of their duties.

This is the result of having kind, firm teachers and officers, who respect the boys' rights, making the school as nearly homelike as possible, and treating the boys as members of a large family.

The boys are employed largely at farm work and in the care of live stock. In winter they have carpentry, printing and the caning of chairs.

The health of all has been excellent, and there has not been a single case of sickness.

Holidays are appropriately observed.

Number of boys in school Dec. 1, 1903,	37
Admitted during the year,	28
Whole number cared for,	65
Discharged during the year,	24
Average attendance during the year,	35.8
Remaining Dec. 1, 1904,	41

HAMPDEN COUNTY TRUANT SCHOOL, SPRINGFIELD.

ERWIN G. WARD, *Superintendent.*

Number of boys in school Sept. 30, 1903,	34
Committed during the year: habitual truants, 30; habitual absentees, 6; total,	36
Discharged during the year,	28
Released on probation during the year,	5
Ran away during the year,	9

Runaways returned during the year,	9
Returned after being discharged,	3
Average age of commitment,	11 years, 9 months.
Age of youngest,	8
Age of oldest,	15
In school Sept. 30, 1904,	37
Committed for six months,	6
Committed for one year,	25
Committed for two years,	5
Average school grade,	Fourth.

The total expenses for the year were \$7,542.04; income for board of truants, \$2,202.19; net cost per capita, \$2.89+.

The past season has been very favorable for crops, and our tables have been well supplied with vegetables and berries in their season. The boys have been very much interested in caring for and gathering in our garden produce.

The health of the school has been excellent. We have had one case of appendicitis. The pupil, however, was kept out of school on account of the operation only two and five sevenths weeks.

The school building was piped for gas in August, and all are now enjoying plenty of light, — a much-needed improvement. These lights will be appreciated by the boys, as most of them are very much interested in the new books that have been added from time to time to the library. Books of an historical nature are very much in demand. A taste for reading has been so cultivated that in many instances it has kept the boys off the streets for some time after going home. Each book is read to the boys by the matron evenings, then it is placed in their library. It is then taken out and read by the boys individually.

We feel that we have had a very successful school year, and all have made commendable progress in their studies. Most of the pupils, if they go to school at all after being discharged, enter from one to three grades in advance of their grades when committed. Those that are fourteen years old usually go to work. It is worthy of consideration to know how well most of the boys try to profit by the lessons learned at the school in two years or less, when placed under the same old environments. They meet the same old temptations and bad companions, and it is a wonder they hold out as long as they do. We do not find the boys that are now sent to the school as

hard a class to manage as those of six or eight years ago. Some one is doing a good work somewhere.

There has been a healthy and contented spirit among the boys, both on the playground and at their work; and it is gratifying to hear their parents say, "My boy is doing well and he says he likes here;" and "I'm glad he is here."

We find that quite a number of our boys were truants on account of some physical or mental disability, defective eyesight, hearing, etc., which the overworked teachers in our public schools have not had time or patience to correct. Also, a large, over-grown boy, backward in his studies, would rather play truant than to be graded with little tots. Those cities that have schools for *peculiar children* occasionally overcome those evils. Under the new law, if rightly interpreted, more and better work can be done.

MIDDLESEX COUNTY TRUANT SCHOOL, NORTH CHELMSFORD.

M. A. WARREN, *Superintendent.*

I hereby submit the following as the eleventh annual report of this institution:—

Number of boys in school Jan. 1, 1904,	136
Admitted during the year,	83
Whole number for the year,	219
Discharged during the year,	98
Remaining Dec. 31, 1904,	121
Average number for the year,	127

Of those committed during the year, 78 were habitual truants, and 5 were committed for violation of the rules of the school.

Of those released, 92 were discharged by expiration of sentence, and 6 were released upon probation.

Of those committed, 78 could read and write and 5 could neither read nor write.

RECEIPTS AND EXPENSES.

Dr.

County of Middlesex for current expenses,	\$23,998 70
Cities and towns for board of pupils,	7,927 38
Sale of old materials,	54 78
	<hr/>
	\$31,980 86

Cr.

Salaries, labor and wages,	\$9,286 73	
Fuel and lights,	2,009 04	
Provisions, groceries, clothing, and all other ex- penses,	12,102 93	\$23,998 70
Paid into county treasury,		7,982 16
		<u>\$31,980 86</u>

Average net weekly cost per capita, \$2.42 +

Birthplace of boys committed during the year:—

Massachusetts,	70
Canada,	2
Prince Edward Island,	1
Newfoundland,	1
Russia,	1
Portugal,	1
New Hampshire,	1
Rhode Island,	1
Connecticut,	1
Maine,	1
New York,	1
Illinois,	1
Michigan,	1

Ages of boys committed during the year:—

Between seven and eight,	1
Between eight and nine,	4
Between nine and ten,	10
Between ten and eleven,	8
Between eleven and twelve,	15
Between twelve and thirteen,	23
Between thirteen and fourteen,	18
Between fourteen and fifteen,	3
Between fifteen and sixteen,	1

TRUANT SCHOOL OF NORFOLK, BRISTOL AND PLYM- OUTH COUNTIES, WALPOLE.

JAMES H. CRAIG, *Superintendent.*

Number of boys in school Nov. 30, 1903,	42
Committed during year,	36
Discharged during year,	38
In school Nov. 30, 1904,	40

Extensive alterations, repairs and improvements, including a hospital building, have been completed during the year.

The teaching force remains as last year, and the hours of study also.

BOSTON PARENTAL SCHOOL, WEST ROXBURY, MASS.

D. P. DAME, *Superintendent.*

The Parental School of Boston is by law the truant school of Suffolk County, although Chelsea, Revere and Winthrop, which with Boston constitute Suffolk County, are regarded by law as belonging to Middlesex County so far as the commitment of absentees, truants and school offenders is concerned.

STATISTICS OF ATTENDANCE, NATIVITY AND PARENTAL RELATIONS.

The following statistics cover the year from Jan. 1, 1904, to Jan. 1, 1905 :—

Attendance.

Number of boys in school Jan. 1, 1904,	234
Admitted during year,	195
Returned from probation,	1
Discharged during year,	181
Released on probation,	35
In school Dec. 31, 1904,	214
Average attendance during year,	219.4
Average age at commitment,	11 years, 9 months.
Average time spent in the school by boys discharged and released during year,	1 year, 1 month, 13 days.

Nativity of Boys committed during the Year.

Boston,	140
Elsewhere in Massachusetts,	18
Elsewhere in United States,	17
Foreign born,	21
Total,	196

Nativity of Parents.

Both parents born in United States,	31
Both parents born in Ireland,	51
Both parents born in Russia,	15
Both parents born in Italy,	18
Both parents born in Canada,	3
Both parents born in some other foreign country,	13
One parent native born,	25
Both parents foreign born, but of different nationalities,	8
One parent native born and one unknown,	12
One parent foreign born and one unknown,	9
Boys whose parents' nativity was unknown,	11
Total,	196

Parental Relations of Boys committed during the Year.

Both parents living,	134
Father only living,	14
Had stepmother,	10
Mother only living,	27
Had stepfather,	6
Both parents dead,	5
Total,	<hr/> 196

RULES.

The change in the law relating to the commitment of truants, absentees and school offenders has rendered it quite necessary that there should be rules governing the release of boys who may be retained in the school until they are sixteen years of age. The rules adopted by the board of trustees went into effect Aug. 15, 1904, and are as follows : —

1. Each boy shall be given, on entering the school, 2,500 merits to earn. Each week a boy shall be entitled to 100 merits, or such part thereof as, in the judgment of the superintendent, the boy's conduct, effort and industry shall entitle him.

2. In estimating the number of merits to which the boy shall be entitled, his conduct, effort and industry, both in school and outside of school, shall be considered.

3. A boy returned from probation shall be given 3,750 merits to earn, in place of 2,500.

HEALTH.

The general health of the boys has been excellent. There have been no epidemics and very few cases of serious sickness, none of which was fatal.

SCHOOL INSTRUCTION.

The school work has been practically the same as in past years. The boys attend school five hours a day, following the calendar of the Boston public schools. They have two periods (one and one-half to two hours each) a week for manual training, consisting of sloyd and work in cardboard and raphia. In the summer we had a vacation school of five weeks, for the benefit of the smaller boys and for those particularly backward in English and sloyd. Most of the smaller boys received instruction in basketry and raphia work.

WORCESTER COUNTY TRUANT SCHOOL, OAKDALE.

F. L. JOHNSON, *Superintendent.*

The thirteenth year of the history of this school has been a very prosperous one, and many steps in advance toward a practical education for the boys have been taken.

The number has increased from 30 to 46 during the year.

Senator Hoar and his wife spent Aug. 29, 1903, with the boys, a day which will long be remembered by them. The Senator gave the boys a set of Scottish history, and Mrs. Hoar gave them a large picture of the Senator, which now hangs in the schoolroom, a tribute to his memory.

DAILY PROGRAM.

5.00 to 5.30, . Rise.	2.00 to 4.00, . School.
6.00 to 6.30, . Breakfast.	4.00 to 5.30, . Play.
7.00 to 9.30, . Morning duties.	5.30 to 6.00, . Supper.
10.00 to 12.00, . School.	6.30 to 7.30, . Recreation.
12.00 to 12.30, . Dinner.	7.30, . . . "Good Night."
12.30 to 1.30, . Afternoon duties.	

DOMESTIC SCIENCE.

All of the bread making is done by the boys, and much of the other cooking as well. They are taught not only to raise vegetables, but to select and prepare them for cooking and the table. The washing, ironing and mending for the whole school is done by the boys.

MANUAL TRAINING.

The oft-repeated advice of the agent of the State Board of Education, for more manual training among the boys, has been followed, a room being fitted up suitable for a class of 12, and each boy has had an opportunity to become familiar with the use of tools and the elementary principles of sloyd. The following models have constituted the year's work, the advance class having completed each of them :—

- | | |
|-----------------------------|-------------------------|
| 1. Pencil sharpener. | 7. Ring toss. |
| 2. Hat and brush rack. | 8. Spades. |
| 3. Stands. | 9. Calendar backs. |
| 4. Swing boards. | 10. Frames. |
| 5. Teapot stands. | 11. Handkerchief boxes. |
| 6. Shelves for photographs. | 12. Carts. |

The 18 boys with their benches and tools gave an illustration of their work in a large tent at the Clinton Fair in September, giving four days to it. They made models, hammocks, baskets, and illustrated their work in detail to hundreds of interested spectators.

SCHOOL WORK.

With 46 boys, the schoolroom has been a busy place.

The State Normal School at Worcester continues to send apprentices daily, for instruction and experience.

The following is a daily program of school work:—

TIME.	Teacher.	Normal school apprentice.
A.M.		
10.00 to 10.15,	Opening.	
10.15 to 10.30,	B, arithmetic.	D, reading.
10.30 to 10.45,	B, arithmetic.	I. D, number.
10.45 to 11.10,	A, arithmetic.	C, number.
11.10 to 11.30,	A, arithmetic.	II. D, number.
11.30 to 11 55,	Reading.	C, reading.
P.M.		
2.00 to 2.15,	Writing.	Writing.
2.15 to 2.30,	B, history.	D, reading.
2.30 to 3.00,	B, history.	C, geography.
3.00 to 3.30,	A, history.	D, language.
3.30 to 4.00,	Geography.	C, language.

BARN WORK.

Six cows, two horses, twenty-two pigs and poultry are taken in charge by the older boys, who are as fond of their charges as if they were their own in reality. The boys are taught to milk, drive teams, harness, and care for the horses, poultry and swine.

THE ICE CROP.

The ice crop was harvested entirely by the boys, and over ninety tons of twenty-inch ice housed by them.

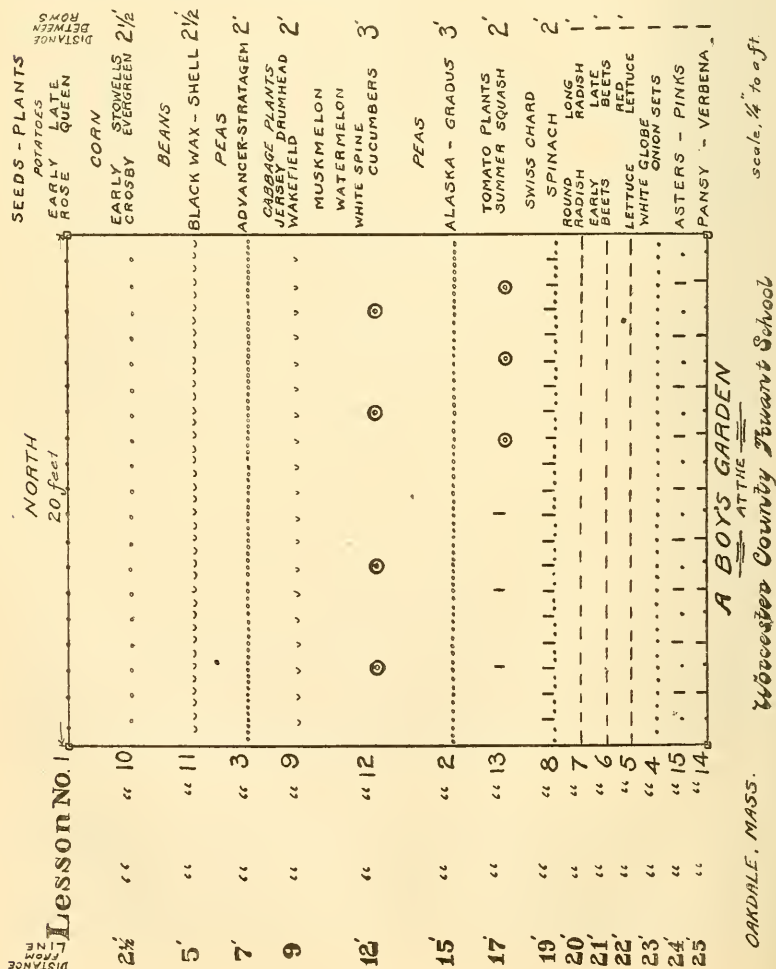
The ploughing, sawing, working and packing were entirely the boys' work.

PLAYGROUND.

"Play is education" has again and again been proved by the boys in the yard. Baseball, match games, running matches, all help to keep the boys in good health and the visits of the doctors few. Play conducted rightly tends to make the boy brave in danger, persevering and strong in self-control.

A BOY'S GARDEN.

No part of the out-door life of the boy has been more beneficial to him than his garden. Every boy has had one of his own, like the accompanying cut.



The school garden has furnished much useful instruction in nature work, as well as food for the tables. The work of this garden has been done entirely by the boys.

NORTH									
Corn									
Potatoes									
Musk Melons	Summer Squashes	Water Melons	Winter Squashes	Cucumbers					
Celery	Tomatoes	Peas	Beans	Cabbages					
Onions		Winter Turnips	Parsnips	Salsify	Turnips	Spinach			
		Beets	Carrots	Herbs	Radishes	Lettuce			
GREEN SWARD									

MADE BY THE BOYS AT THE
WORCESTER COUNTY TRUANT SCHOOL
OAKDALE MASS.

MAY 1904

SCALE — 1 INCH = 25 FEET

RELIGIOUS AND MORAL INSTRUCTION.

Each boy has an opportunity every Sunday to attend the church of his choice, and the afternoon is devoted to instructive lessons about good and great men. Instruction in music is given to those who show an aptitude for it. Two pianos and an organ help this out. It is a pleasant sight to see 46 boys around the organ on a Sunday evening, singing songs which help make life brighter and boys better. "When the roll is called up yonder, I'll be there," is a great favorite.

BUSINESS DEPARTMENT.

The long winter evenings have been pleasantly spent in buying and selling farm produce. Each boy is given a bank account to trade against, and, with printed cards which represent the produce, they enter into business transactions with considerable enthusiasm. The following illustrates their manner of keeping accounts : —

WORCESTER COUNTY TRUANT SCHOOL. — SALES.

Cash Sales This Date, Feb. 5, 1905.

		Price.	Amount.
1. Sedley,	100 bushels potatoes, . . .	\$0 60	\$60 00
2. Calkins,	200 bushels potatoes, . . .	75	150 00
3. J. Short,	60 bushels potatoes, . . .	90	54 00
4. Lord,	50 bushels potatoes, . . .	80	40 00
5. Manis,	100 bushels potatoes, . . .	81	81 00
6. Gordis,	90 bushels potatoes, . . .	79	71 10
7. Keene,	40 bushels potatoes, . . .	75	30 00
8. Rood,	30 bushels potatoes, . . .	92	27 60
9. Carson,	200 bushels potatoes, . . .	95	190 00
10. Sanborn,	50 bushels potatoes, . . .	1 00	50 00
Total sales,	920 bushels potatoes, . . .	. . . .	\$753 70
Cost of same,	920 bushels potatoes, . . .	. . . .	433 20
Profit, . . . . .	. . . . .	. . . .	\$320 50
Loss, . . . . .	. . . . .	. . . .	-

HERBERT ABBOTTS, *Seller.*

WORCESTER COUNTY TRUANT SCHOOL.

OAKDALE, MASS., Feb. 3, 1905.

Clearing House Sheet. — Business Department.

BUYER.	Merchandise.	Price.	Amount.	Seller.
James King, . .	100 bushels wheat, .	\$1 15	\$115 00	Herbert Abbotts.
Henry Smith, . .	300 pounds pork, . .	13	39 00	John Short.
George Carter, . .	100 bushels potatoes, .	60	60 00	William Carson.
Edward Sanborn, .	500 bushels corn, . .	40	200 00	Frank Murphy.
John Forbes, . .	1,000 bushels wheat, .	1 15	1,150 00	Richard Ford.
George Rood, . .	60 bushels potatoes, .	60	36 00	Jeremiah Kelley.
Stephen Bond, . .	10 bushels wheat, . .	1 15	11 50	James Keene.
Frank Murphy, . .	300 pounds cotton, . .	07½	22 50	Frank Doherty.
John Marsh, . .	20 bushels potatoes, .	60	12 00	John Whatley.
John Short, . . .	10 bushels corn, . .	40	40 00	James Whatley.
Earl Starr, . . .	150 pounds pork, . .	13	20 50	Peter Treen.
Fred Waters, . .	100 bushels potatoes, .	60	60 00	Oliver Ransford.
Raynor Cadson, . .	500 bushels wheat, . .	1 15	575 00	Bert Bean.
Frank Ransford, .	1,000 pounds cotton, .	07½	75 00	William Mortis.
Walter Lord, . .	600 pounds cotton, . .	07½	45 00	Bert Bean.
William Sheath, . .	100 bushels corn, . .	40	40 00	John Short.
William Keats, . .	1,000 pounds pork, . .	13	130 00	Joseph Marsh.
Henry Smith, . .	1,000 pounds cotton, .	07½	75 00	Herbert Bone.
George Rood, . .	200 bushels potatoes, .	60	120 00	William Keats.
Edward Sanborn, .	100 bushels corn, . .	40	40 00	Henry Sedley.

FRANK MURPHY, *Secretary.*

In conclusion, let me say that real success in teaching the boys is attained by having them do things, make things and take care of things. A practical, self-reliant education is what is needed by these boys, who have to go out into the world among men, and it is necessary for them to learn those things which help to that end.

APPENDIX H.

REPORT OF THE STATE BOARD OF EDUCATION

UPON THE

FEASIBILITY AND DESIRABILITY OF INCREASING THE
AGE OF COMPULSORY SCHOOL ATTENDANCE,

IN ACCORDANCE WITH A RESOLVE OF THE LEGISLATURE OF 1904.

Commonwealth of Massachusetts.

MASSACHUSETTS BOARD OF EDUCATION, STATE HOUSE,
BOSTON, MASS., Feb. 6, 1905.

Hon. LOUIS A. FROTHINGHAM, *Speaker of the House of Representatives.*

MY DEAR SIR:—In compliance with the provisions of chapter 80 of the Resolves of 1904, I have the honor to submit herewith to the Legislature the report of the Board of Education on the feasibility and desirability of increasing the age of compulsory school attendance.

Yours very respectfully,

GEORGE H. MARTIN,
Secretary.

REPORT OF THE STATE BOARD OF EDUCATION UPON THE FEASIBILITY AND DESIRABILITY OF INCREASING THE AGE OF COMPULSORY SCHOOL ATTENDANCE, IN ACCORDANCE WITH A RESOLVE OF THE LEGISLATURE OF 1904.

BOSTON, Feb. 3, 1905.

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.

The Legislature of 1904 passed the following resolve:—

Resolved, That the state board of education be authorized to investigate and report upon the feasibility and desirability of increasing the age of compulsory school attendance so as to include children of the age of fourteen. [*Approved May 20, 1904.*]

The Board of Education has interpreted this resolve as a request, and has in accordance with it made the authorized investigation, and submits the following report:—

REPORT.

The investigation into the feasibility and desirability of raising the age of compulsory school attendance from fourteen to fifteen has been in four directions: first, to ascertain the number of children in the State who would be affected by such legislation; second, to learn from persons familiar with school conditions the probable effect of such legislation; third, to compare the present school attendance and employment laws of the State with those which have preceded them; and, fourth, to compare the Massachusetts laws with those of other States.

Inquiries were sent to each city and town in the State, to ascertain: first, the number of persons in the town or city in the fifteenth year of their age on Sept. 1, 1904, as shown by the school census; second, the whole number of such persons in the public schools; third, the distribution of these pupils in the grades; fourth, the proportion of such pupils entering the high schools.

Replies have been received from the 322 of the 353 towns and cities. The reports from these cities and towns have been tabulated, and estimates made for the missing towns. The summary of these returns is as follows:—

Whole number of persons in towns in the fifteenth year of their age, Sept. 1, 1904, 51,204. Taking the number reported as being in the public schools, and estimating for the private schools, it appears that there were in school 33,539 persons in their fifteenth year, or 65.5 per cent. of the whole number in the State.

It would appear from these figures that the whole number of children in the State in their fifteenth year not now in school who would be affected by the proposed legislation is 17,665. The children of this age who are reported as being in school are distributed through the schools as follows, the total number of boys and girls being nearly equal:—

In ungraded (rural) schools,	362
In ungraded classes (chiefly children of recent immigration),	224
In fourth-grade classes,	417
In fifth-grade classes,	822

In sixth-grade classes,	1,796
In seventh-grade classes,	3,616
In eighth-grade classes,	6,008
In ninth-grade classes,	6,881
In high schools,	8,059

Graduated from the grammar schools in June, 1904, 7,523, of whom 3,507 were boys and 4,016 girls.

Of these there entered the high school in September, 1904, 5,733, or 76 per cent., of whom 2,631 were boys and 3,102 girls.

The significant features of these returns are : first, that more than 65 per cent. of these children in their fifteenth year are kept in school voluntarily by their parents beyond the age of fourteen ; second, that the number of boys and girls so kept in school are nearly equal, contrary to the usual opinion that boys are more likely to be withdrawn from school early than girls ; third, that these children are where they ought to be, — that is, in the upper grades and in the high school.

Of those in the schools reported, 93.5 per cent. have reached the sixth grade, leaving only 1,825 who have failed to make that degree of advancement.

When we consider that before reaching the sixth grade children in average schools can read with considerable fluency ; can compose ordinary English sentences correctly, and write them in a fair hand ; have learned the fundamental operations with numbers and with the simpler forms of common fractions ; have had a glimpse of the world geography, and have heard and read stories of American history ; have had some instruction in drawing and temperance physiology, — it would seem evident that few of the children who are withdrawn from school on reaching the age of fourteen can be classed as illiterates, and that most of them have acquired what in earlier days in Massachusetts would have been considered a fair education.

The same conclusion may be reached from the consideration of city school statistics. These show that the largest reduction in numbers owing to the withdrawal of fourteen-year-old pupils occurs between the seventh and eighth grades.

The board has sought the opinion of teachers, school superintendents, truant officers and workers for charitable societies,

as to the probable effects of changing the present law so as to include children in their fifteenth year. With practical unanimity these persons express the following opinions :—

1. The great majority who can afford to keep their children in school are now doing so.

2. Of those who do not need the assistance of the children in the support of the family, but who hasten to withdraw their children from school when the age limit is reached, the great majority consists of recent immigrants who are themselves comparatively illiterate.

3. To raise the age limit would hold these children in school another year, which would be to their advantage.

4. Some of the children so held, especially those in the upper grades, being by a year nearer graduation, might be allowed by their parents to continue for the sake of the diploma, which has some commercial value, through enabling its possessor to secure more remunerative employment. This also would be an advantage.

5. On the other hand, in a large number of cases the family conditions are such as to furnish a pressing necessity for the assistance of the child in the family support. Were the right to this assistance withdrawn by raising the age limit, many families would suffer hardship in consequence. Numerous specific cases of this nature have been brought to the notice of the Board in the course of this investigation. The opinion is universal that it is better that the children should work after reaching the age of fourteen than that the family should be pauperized.

6. A considerable proportion of those who leave school promptly on reaching the age of fourteen do so voluntarily, preferring the more active life outside to the confinement of school. These are children for whom the study of books has little attraction, because their tastes are not literary or because they are slow-witted. Such children would get little good from continuing in school. Regular work for wages would stimulate them to effort and would increase their self-respect; it would be a moral and a mental tonic. Later, some of these see that they have made a mistake, and return to study in evening schools.

In a report of the New Jersey Bureau of Statistics of Labor and Industry for 1903 it is stated that, of 938 boys and girls, averaging a little over fifteen years, who were found at work, only 5.8 per cent. would rather attend school than work.

7. Were the age limit raised, the difficulty of enforcing the compulsory law would be increased. The usefulness of a law does not lie in the breadth of its scope nor in the minuteness of its details, but in the vigor and thoroughness with which it is enforced. The law now upon the statute books of Massachusetts is more simple, intelligible and enforceable than any which has preceded it; but, taking the State at large, it is not enforced either with vigor or with thoroughness. To add another year to the period for compulsory schooling would increase the pressure upon the parents, whose claim upon the child's time would be stronger, and it would also tend to force into irregularity and truancy some of the class just described who prefer work to school, or idleness to school.

8. The opinion is expressed by persons familiar with the conditions that the existing law, excellent as it is in most respects, contains one defect: it allows children to leave school at the age of fourteen who cannot read and write, and allows them to be employed, although illiterate, provided they attend an evening school. These are mostly non-English-speaking foreign-born children.

In the case of boys and girls who have just passed their fourteenth birthday, and are employed for nine or ten hours in factories and workshops, it is a hardship for them to be compelled to attend a night school for two hours in the evening. They are too tired and often too sleepy to apply themselves to study. They could acquire the rudiments of learning much quicker, and with less danger of physical impairment, by regular attendance at a day school. The children, their families and the community would ultimately be benefited if these children were required to attend a day school regularly until they are sixteen years of age, or until they are able to read and write ordinary English. The New York law requires schooling equal to that in a fifth grade.

The present law is the result of more than twenty years' experimenting. In 1850 a law was passed requiring children

between the age of six and fifteen to be either at school or at work, and towns were empowered to make by-laws and appoint officers to carry out the provisions of the law.

The first compulsory school attendance law in the United States was passed by the Legislature of Massachusetts in May, 1852. It fixed eight and fourteen as the age limits, and called for twelve weeks of schooling, six of which should be consecutive in each year. It was made the duty of the school committee to report to the town or city cases of violation of the law, and of the treasurer of the town or city to prosecute all violations of the act. Among other exemptions, if the parent by reason of poverty was not able to send the child to school, he was held not to have violated the law.

By repeated acts of legislation the law has been broadened and strengthened. In 1873 the age limit was lowered to twelve years, but the annual schooling was extended to twenty weeks, and the enforcement of the law was given to truant officers especially appointed by the school committees.

In 1874 the age limit was again raised to fourteen, and it was ordered that the twenty weeks' schooling be in two terms of ten consecutive weeks each.

In 1876 an employment law was passed providing that no child under ten should be employed in any manufacturing, mechanical or mercantile establishment. No child under fourteen might be so employed unless in the year next preceding his employment he had attended a public or private day school for at least twenty weeks in two terms of ten consecutive weeks each. The employment law served to fortify the attendance law.

In 1889 the exemption on account of the poverty of the parents, which had proved a troublesome weakness, was stricken out.

In 1890 the length of schooling was extended to thirty weeks if the schools in the town continued so long. There was an allowance of two weeks for unexcused absences.

In 1891 a law was enacted raising the school age to fifteen in towns and cities where, in connection with the regular work of the public schools, provision was made for industrial education in any form.

In 1894 the employment laws were strengthened, but they allowed children in their fourteenth year to be employed during vacations and at other times, provided they had attended school thirty weeks during the year next preceding such employment.

In 1898 the limits of school age were fixed at seven and fourteen, and attendance was required during the entire time when the public schools were in session. The minimum school year was fixed at thirty-two weeks.

Children between the ages of fourteen and sixteen, if found wandering about the streets and growing up in idleness and ignorance, might be dealt with as children between seven and fourteen might be dealt with for truancy. This is the existing law.

Comparing the existing law with those that have preceded it, its superiority is found in beginning the school life at seven instead of eight years of age; in making the attendance compulsory during the whole time the schools are in session, which may not be less than thirty-two weeks, and is on an average in the State thirty-seven weeks; in reducing the grounds for exemption; in forbidding the employment of children of school age when the schools are in session; in the employment of special truant officers, under the direction of the school authorities, to enforce the law.

The facts to be ascertained about any child are few and easily answered. Is he between seven and fourteen years of age? Is he in school all the time when the schools are in session? If not, is he receiving an equivalent education elsewhere? If not, are his parents keeping him at home, or is he a truant, or at work for wages?

In comparison with the school attendance and labor laws of other States, the law of Massachusetts appears to be as broad and as simple as those of any State, and superior in these respects to the laws of most of the States.

In tables contained in the last report of the United States Commissioner of Education thirty-five States are shown to have compulsory attendance laws. Of these, twenty-two make the lower age limit eight years,—one year above that of Massachusetts. Two make the upper age limit twelve years,—the age fixed by Massachusetts in 1852. Twenty-one States

make the upper age limit fourteen, — the same as Massachusetts. Eleven States have a nominally higher age limit (fifteen or sixteen), but all States allow children to be employed after reaching the age of fourteen, if not earlier. Most of the States retain some of these exceptions and exemptions which have made the enforcement of our own laws difficult in the past.

It appears from the United States report that Massachusetts is now requiring of all the children in the State a larger aggregate amount of continuous schooling than any other State except Connecticut.

In conclusion, the Board reports that it does not consider it feasible or desirable to raise the age limit for compulsory school attendance from fourteen to fifteen, for the reasons that a large majority of children in their fifteenth year are now in school; that of those who have been withdrawn a large proportion have acquired a fair amount of education; that others are so disposed towards school as not to be likely to reap much advantage from continued attendance; that most of those who have been withdrawn are aiding in the family support, and that this assistance is needed in a majority of cases; and that to raise the school age would increase the difficulty of the enforcement of the law.

The Board would, however, approve an amendment to the law which would hold children in school until the age of sixteen, provided they are not able earlier to read and write.

Respectfully submitted,

GEORGE H. MARTIN, *Secretary,*
For the Board.

AN ABSTRACT

OF THE

SCHOOL RETURNS MADE BY THE SCHOOL COMMITTEES
OF THE SEVERAL TOWNS AND CITIES IN
THE COMMONWEALTH

FOR

THE SCHOOL YEAR 1903-1904.

BARNSTABLE COUNTY.

TOWNS AND CITIES.	Population — U. S. Census of 1900.	Valuation — May 1, 1903.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1903.				SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils within the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.		
Barnstable,	4,364	\$4,851,665	25	612	451	744	—	96	482	679	622	.92		
Bourne, .	1,657	2,451,150	11	222	164	295	—	41	207	278	244	.88		
Brewster, .	829	537,310	4	131	85	123	—	19	89	116	101	.88		
Chatham, .	1,749	940,522	13	247	172	277	6	30	172	251	221	.88		
Dennis, .	2,333	1,072,692	14	325	255	432	3	56	281	373	344	.92		
Eastham, .	502	331,727	2	84	63	83	—	—	66	71	65	.91		
Falmouth, .	3,500	7,639,219	16	420	287	524	—	48	355	478	416	.88		
Harwich, .	2,334	1,128,450	13	389	265	419	2	49	275	372	333	.90		
Mashpee, .	303	179,830	3	62	50	61	3	4	43	54	48	.88		
Orleans, .	1,123	586,968	4	180	124	211	—	39	124	191	169	.88		
Provincetown, .	4,247	1,956,275	21	802	562	896	2	64	588	803	749	.93		
Sandwich, .	1,448	972,225	9	217	152	244	—	35	156	216	193	.90		
Taunton, .	767	357,085	4	145	98	156	1	21	93	125	117	.93		
Ware, .	988	1,009,083	5	125	92	146	1	16	91	130	122	.93		
Wellfleet, .	1,682	1,824,364	9	192	160	222	2	23	136	203	183	.90		
Yarmouth, .														
Totals, .	27,826	\$25,838,565	153	4,153	2,980	4,833	20	541	3,158	4,340	3,927	.90		

BERKSHIRE COUNTY.

Adams, .	11,134	\$5,561,905	43	2,471	1,968	1,897	21	96	1,366	1,641	1,557	.95		
Alford, .	272	164,988	3	41	32	54	2	4	35	38	32	.85		
Becket, .	994	460,888	8	162	126	200	4	16	152	137	117	.86		

SCHOOL RETURNS.

iii

Cheshire,	1,221	688,484	7	208	145	200	-	4	144	162	146	90
Clarksburg,	943	254,746	6	269	201	249	2	-	170	178	149	84
Dalton,	3,014	2,876,883	18	552	403	558	-	55	346	508	456	90
Flomont,	758	446,695	4	96	81	116	-	3	87	91	77	84
Egremont,	390	151,992	5	83	73	101	-	1	78	82	75	92
Great Barrington,	5,854	4,823,142	32	1,041	718	1,061	8	121	688	961	858	89
Hancock,	451	271,507	6	62	45	88	2	5	64	58	52	88
Hinsdale,	1,485	574,379	10	253	199	298	1	12	196	246	211	86
Lanesborough,	780	466,155	5	132	116	137	1	6	99	116	87	75
Lee,	3,596	1,889,065	13	754	535	631	35	73	401	573	511	81
Lenox,	2,942	4,434,200	21	548	408	647	8	60	440	582	508	87
Monterey,	455	240,066	5	86	65	80	1	4	61	62	55	83
Mount Washington,	122	90,422	2	23	19	23	-	1	19	20	17	89
New Ashford,	107	54,900	1	10	5	9	-	-	5	8	7	88
New Marlborough,	1,282	565,175	9	203	153	238	5	5	172	173	146	84
North Adams,	24,200	14,480,948	79	4,754	3,356	3,496	193	331	2,492	3,066	2,829	92
Otis,	476	231,337	5	89	61	85	1	9	53	65	59	91
Peru,	253	122,203	5	64	49	58	1	-	43	49	42	86
Pittsfield,	21,766	17,241,647	107	4,320	3,067	4,158	108	375	2,643	3,650	3,354	92
Rhinecliff,	679	334,595	6	103	82	106	1	7	79	95	84	88
Sandisfield,	661	314,068	8	109	75	119	3	6	88	86	71	83
Savoy,	506	168,500	7	91	73	104	1	8	72	78	67	86
Sheffield,	1,804	918,015	12	282	208	328	4	30	210	241	209	87
Stockbridge,	2,081	3,428,813	11	385	276	441	3	54	285	376	336	89
Tyringham,	386	234,717	3	51	33	51	-	4	37	37	31	84
Washington,	377	275,535	6	76	61	102	1	5	65	65	55	85
West Stockbridge,	1,158	383,490	8	170	116	198	3	12	129	142	123	87
Williamstown,	5,013	2,867,345	22	848	609	876	2	101	603	754	705	93
Windsor,	507	203,900	7	95	73	101	3	1	74	86	74	86
Totals,	95,667	\$65,220,705	484	18,431	13,431	16,810	417	1,409	11,396	14,426	13,100	91

BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.								LENGTH OF SCHOOLING.		HIGH SCHOOLS.			
	No. of teachers re- quired by the pub- lic schools.	No. of different male teachers employed during the school year.	No. of different fe- male teachers em- ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor- mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	All the public schools have been kept during the school year.	Aggregate of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Barnstable,	25	10	21	22	25	\$73 61	\$42 72	217-15	8-14	2	4	117	9-15 9-15 9-10	\$1,100 00
Bourne,	12	2	12	6	7	82 65	42 52	94-10	8-12	1	2	44	9-10	800 00
Brewster,	5	1	4	2	3	70 00	40 00	34-10	8-15	1	2	33	9	900 00
Chatham,	13	1	13	3	5	88 88	34 08	117	9	1	2	42	9	1,025 00
Dennis,	14	4	10	6	6	58 25	41 00	115-5	8-4	2	2	72	9 9 9	800 00
Eastham,	2	-	2	1	1	-	40 00	18	9	-	-	-	-	675 00
Falmouth,	19	4	16	3	12	77 00	49 40	147-10	9-4	1	4	68	10	1,200 00
Harwich,	14	1	15	4	7	80 00	38 85	111-11	8-12	1	1	53	9-11	800 00
Mashpee,	3	3	2	3	3	47 50	42 00	24-15	8-5	-	-	-	-	-
Orleans,	7	3	6	3	3	80 00	38 83	36-4	9-1	1	2	37	9-13	800 00
Provincetown,	23	1	27	7	8	100 00	35 03	199-10	9-10	1	3	49	9-10	1,000 00
Sandwich,	9	1	9	4	5	58 82	41 23	77-10	8-12	1	2	29	9-10	750 00
Truro,	4	1	4	1	2	-	40 82	36	9	-	-	-	-	-
Wellfleet,	6	1	8	-	2	89 48	35 82	47-10	9-10	1	2	30	9-10	850 00
Yarmouth,	11	6	10	3	4	71 67	40 00	80-2	8-18	1	1	22	8-18	1,000 00
Totals,	167	36	159	68	93	\$71 72	\$39 98	1,357-12	8-17	14	27	596	9-8	\$12,345 00

BERKSHIRE COUNTY — CONTINUED.

Adams,	51	6	49	26	28	\$110 78	\$45 75	406-5	9-9	1	7	148	9-17	\$1,600 00
Alford,	3	-	5	-	2	-	31 51	24-10	8-3	-	-	-	-	-
Becket,	8	-	13	-	3	-	32 61	70-12	8-16	-	-	-	-	-

SCHOOL RETURNS.

V

Cheshire,	7	1	7	2	4	38 00	38 66	61-19	8-17	-	-	-	-	-	-	-	-
Clarksburg,	6	1	8	6	6	40 00	40 00	51	8-10	-	-	-	-	-	-	-	-
Dalton,	18	1	19	11	13	120 00	46 00	170-14	9-9	-	3	47	9-18	1,200 00	-	-	-
Egremont,	4	1	6	2	3	40 00	36 03	39	9-15	-	-	-	-	-	-	-	-
Florida,	5	1	9	2	3	40 00	33 04	36-10	8	-	-	-	-	1,600 00	-	-	-
Great Barrington,	33	3	32	11	11	96 67	40 11	301-12	9-8	1	6	150	9-15	-	-	-	-
Hancock,	6	1	8	2	3	-	29 67	48	8	-	-	-	9	600 00	-	-	-
Hinsdale,	11	1	15	3	4	66 66	31 50	90	9	1	1	23	9	-	-	-	-
Lanesborough,	5	-	8	3	3	-	39 25	45	9	-	-	-	-	-	-	-	-
Lee,	21	1	22	5	6	142 43	38 28	120-12	9-4	1	3	84	9-6	1,300 00	-	-	-
Lenox,	21	1	23	15	16	110 00	43 00	205-16	9-16	1	3	61	9-16	1,100 00	-	-	-
Monterey,	5	2	5	1	4	-	24 80	40	8	-	-	-	-	-	-	-	-
Mount Washington,	2	2	4	5	6	40 00	40 00	20	10	-	-	-	-	-	-	-	-
New Ashford,	3	-	3	3	3	-	40 00	8-5	8-5	-	-	-	-	-	-	-	-
New Marlborough,	9	-	14	3	4	-	29 33	79	8-15	-	-	-	-	-	-	-	-
North Adams,	114	8	102	33	54	123 97	52 38	750-15	9-10	1	10	253	9-15	2,200 00	-	-	-
Otis,	5	-	8	4	5	-	32 80	40	8	-	-	-	-	-	-	-	-
Peru,	5	-	5	1	3	-	28 00	39-5	7-17	-	-	-	-	-	-	-	-
Pittsfield,	122	9	117	25	27	118 89	46 55	1,053-16	9-17	1	9	290	9-17	2,000 00	-	-	-
Richmond,	6	-	10	3	3	-	34 66	56-10	9-8	-	-	-	-	-	-	-	-
Sandisfield,	8	-	13	1	4	-	20 63	61-10	8	-	-	-	-	-	-	-	-
Savoy,	7	2	9	1	1	27 00	31 72	56	8	-	-	-	-	-	-	-	-
Sheffield,	13	2	16	4	7	46 00	36 00	108-10	9-10	1	2	25	9-10	608 00	-	-	-
Stockbridge,	15	5	16	9	10	85 50	42 66	104	9-9	1	4	74	10	1,100 00	-	-	-
Tyringham,	3	-	3	1	1	-	32 68	26-15	8-18	-	-	-	-	-	-	-	-
Washington,	6	2	9	3	4	-	31 33	48	8	-	-	-	-	-	-	-	-
West Stockbridge,	8	-	27	4	4	28 00	34 67	70-10	8-16	-	-	-	-	-	-	-	-
Williamstown,	30	4	27	9	11	78 50	41 44	197-17	9	1	3	65	9-8	1,200 00	-	-	-
Windsor,	7	-	9	3	4	-	30 89	56	8	-	-	-	-	-	-	-	-
Totals,	567	51	602	201	260	\$90 92	\$41 84	4,488-3	9-5	11	51	1,220	9-12	\$14,508 00	-	-	-

BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.		
Barnstable, . . .	\$14,414 81	\$2,870 96	\$2,773 80	\$88 00	\$1,500 00	\$1,100 00	\$590 58	\$23,278 15	\$19,619 31
Bourne, . . .	5,132 05	549 96	935 55	70 00	675 00	651 77	66 82	8,081 45	6,923 89
Brewster, . . .	2,023 75	406 50	215 62	79 00	260 87	215 62	38 00	3,084 39	2,253 65
Chatham, . . .	3,405 99	484 32	699 76	240 00	354 83	349 27	305 75	5,839 92	5,000 00
Dennis, . . .	5,338 02	-	1,096 69	160 00	1,012 02	525 02	155 16	8,287 51	6,963 84
Eastham, . . .	1,013 60	956 40	200 63	-	1,197 62	212 99	44 57	2,625 81	1,131 25
Falmouth, . . .	10,292 50	2,718 21	2,988 68	402 17	1,400 00	1,070 36	36 25	18,908 17	18,333 02
Harwich, . . .	5,358 25	202 00	996 87	103 50	777 21	453 29	76 62	7,967 74	6,806 53
Mashpee, . . .	1,134 88	34 75	189 19	32 50	159 03	98 67	25 00	1,674 02	576 63
Orleans, . . .	2,854 25	971 45	613 10	20 00	239 07	248 61	62 36	5,008 84	3,826 21
Provincetown, . . .	9,283 35	-	2,169 80	126 25	894 88	988 42	137 00	13,599 70	12,448 40
Sandwich, . . .	3,682 55	146 50	915 08	-	675 00	441 37	134 15	5,994 65	4,987 39
Truro, . . .	1,681 20	469 00	425 18	96 50	178 50	372 05	26 00	2,779 43	1,872 20
Wellfleet, . . .	2,666 04	715 25	416 18	86 00	232 32	322 77	48 21	4,240 52	3,276 14
Yarmouth, . . .	5,499 50	-	814 29	15 00	509 66	265 47	311 68	8,130 85	5,588 13
Totals, . . .	\$73,781 34	\$10,525 30	\$15,445 45	\$1,518 92	\$9,066 01	\$7,315 68	\$1,998 15	\$119,650 85	\$99,706 59

BERKSHIRE COUNTY — CONTINUED.

Adams, . . .	\$26,415 74	\$209 20	\$5,380 38	\$200 00	\$2,400 00	\$1,980 48	\$1,811 29	\$38,397 09	\$38,397 09
Alford, . . .	882 00	56 25	32 25	-	204 60	114 38	40 75	1,330 23	540 00
Becket, . . .	2,680 97	113 00	166 13	41 50	404 59	135 72	48 22	3,590 13	2,593 92

SCHOOL RETURNS.

vii

Cheshire, . . .	2,817 50	509 80	539 09	50 00	450 00	305 07	128 89	4,801 35	1,247 80	3,553 55
Clarksburg, . .	2,581 40	-	262 05	67 00	500 00	127 75	12 55	3,550 75	1,717 67	1,833 08
Dalton, . . .	9,294 00	222 00	2,285 12	225 00	1,050 00	1,140 35	520 29	14,736 76	875 00	13,861 76
Egremont, . . .	2,955 20	-	185 11	-	272 60	132 97	10 80	3,556 68	2,254 76	1,301 92
Florida, . . .	1,524 00	24 00	70 50	70 00	218 80	204 68	157 34	2,269 32	1,469 32	800 00
Great Barrington, .	14,517 50	638 66	3,835 39	300 00	1,145 00	2,290 38	901 76	23,678 69	2,895 53	20,783 16
Hancock, . . .	1,487 98	-	102 62	22 77	500 00	127 44	15 00	2,255 81	1,224 75	1,031 06
Hinsdale, . . .	3,825 60	-	527 74	-	619 21	384 75	8 00	5,365 30	1,215 96	4,149 34
Lanesborough, . .	1,727 00	178 30	423 57	92 00	416 64	173 59	287 31	3,298 41	1,430 81	1,867 60
Lee, . . .	8,382 50	568 21	2,017 72	393 00	768 00	1,258 54	517 50	13,904 97	1,998 78	11,906 19
Lenox, . . .	10,023 13	387 00	2,991 76	310 00	763 30	996 51	264 80	15,736 50	180 00	15,556 50
Monterey, . . .	1,276 33	265 88	117 78	65 00	320 00	181 49	16 75	2,243 23	1,413 41	829 82
Mt. Washington, .	800 00	-	102 00	32 50	75 00	323 98	98 00	1,431 48	1,170 93	260 55
New Ashford, . .	330 00	-	16 50	36 00	83 33	29 00	56 44	551 27	330 00	221 27
New Marlborough, .	2,675 00	348 25	193 55	102 75	570 00	212 71	61 32	4,163 58	2,588 69	2,588 69
North Adams, . .	58,194 37	760 00	19,336 80	1,850 00	2,850 00	3,935 11	1,000 00	87,926 28	87,926 28	87,926 28
Otis, . . .	1,338 00	235 20	59 25	18 00	320 00	143 78	51 66	2,165 89	1,021 04	1,021 04
Penn, . . .	1,078 75	62 00	70 25	30 00	258 64	95 33	46 70	1,641 67	1,219 36	1,422 31
Pittsfield, . . .	63,050 33	455 00	13,351 95	1,514 00	2,300 00	6,638 01	1,196 66	88,505 95	88,505 95	88,505 95
Richmond, . . .	2,163 20	66 50	257 58	25 25	501 14	87 38	22 40	3,123 45	1,744 34	1,379 11
Sandisfield, . . .	1,750 80	59 59	176 75	92 80	175 00	190 85	27 42	2,473 21	1,295 64	1,177 57
Savoy, . . .	1,794 00	185 00	60 00	54 50	394 41	105 27	12 00	2,605 18	1,635 85	919 33
Sheffield, . . .	4,065 29	476 40	610 67	72 88	780 00	535 57	79 78	6,620 59	5,132 70	5,132 70
Stockbridge, . . .	7,285 00	1,148 43	1,257 76	225 00	500 00	806 98	167 15	11,390 32	10,923 16	10,923 16
Tyringham, . . .	864 50	219 08	69 50	30 00	230 40	105 68	13 00	1,532 16	1,128 67	403 49
Washington, . . .	1,515 45	209 80	92 63	-	175 78	71 12	40 25	2,105 03	1,156 03	949 00
West Stockbridge, .	2,382 40	28 00	324 66	54 63	545 52	214 45	6 00	3,555 66	2,242 22	1,313 44
Williamstown, . .	12,057 18	114 00	3,491 41	155 75	1,200 00	1,166 73	635 73	18,820 80	250 00	18,570 80
Windsor, . . .	1,730 00	198 60	73 00	43 00	538 47	94 18	23 00	2,700 25	1,688 16	1,012 09
Totals, . . .	\$253,465 12	\$7,788 15	\$58,481 47	\$6,173 33	\$21,530 43	\$24,310 73	\$8,278 76	\$380,027 99	\$38,296 22	\$341,731 77

BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxa- tion.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE IN- COME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New school- houses.	Alterations and perma- nent repairs.	Ordinary re- pairs.				Principal.	Income.	
Barnstable, . . .	\$7,599 94	\$696 59	\$881 31	\$9,177 84	\$7,168 99	\$21,628 16	\$10,233 00	\$394 32	\$388 67
Bourne, . . .	—	—	619 86	619 86	—	7,613 75	—	—	—
Brewster, . . .	—	—	31 75	31 75	—	2,285 40	—	—	100 44
Chatham, . . .	—	—	75 00	75 00	—	5,075 00	—	—	112 60
Dennis, . . .	—	78 95	519 80	598 75	—	7,562 59	—	—	136 12
Eastham, . . .	—	—	18 75	18 75	—	1,150 00	—	—	—
Falmouth, . . .	2,684 73	—	2,045 73	4,730 46	—	23,063 48	10,000 00	575 15	—
Harwich, . . .	—	—	271 61	271 61	—	7,078 14	1,000 00	35 00	196 60
Mashpee, . . .	300 00	—	10 52	310 52	—	887 15	—	—	57 51
Orleans, . . .	—	—	182 78	182 78	—	4,008 99	—	—	112 05
Provincetown, . . .	—	456 94	640 30	1,097 24	—	13,545 64	—	—	—
Sandwich, . . .	—	—	279 93	279 93	—	5,267 32	—	—	291 35
Truro, . . .	—	—	241 73	241 73	—	2,213 93	—	—	58 50
Wellfleet, . . .	—	773 26	211 70	984 96	—	4,261 10	—	—	55 76
Yarmouth, . . .	—	—	161 23	161 23	—	5,749 36	15,000 00	900 00	163 99
Totals, . . .	\$10,584 67	\$2,005 74	\$6,192 00	\$18,782 41	\$7,168 99	\$111,320 01	\$36,233 00	\$1,904 47	\$1,673 59

BERKSHIRE COUNTY — CONTINUED.

Adams, . . .	—	\$1,018 66	\$933 86	\$1,952 52	\$1,952 52	\$40,349 61	—	—	—
Alford, . . .	—	—	—	—	—	540 00	—	—	—
Becket, . . .	—	16 20	47 49	63 69	63 69	2,657 61	—	—	\$115 05

SCHOOL RETURNS.

ix

Cheshire,	-	70 25	70 25	-	70 25	3,623 80	-	-	140 93
Clarksburg,	\$216 00	106 08	322 08	-	322 08	2,155 16	-	-	-
Dalton,	-	904 88	904 88	-	904 88	14,766 64	-	-	-
Egremont,	-	660 38	660 38	-	660 38	1,962 30	-	-	101 92
Florida,	-	63 53	63 53	-	63 53	863 53	-	-	-
Great Barrington,	-	1,482 62	1,482 62	-	1,482 62	22,265 78	-	-	486 50
Hancock,	-	10 32	10 32	-	10 32	1,041 38	\$200 00	\$12 00	-
Hinsdale,	-	31 50	209 61	-	209 61	4,358 95	-	-	-
Lanesborough,	-	356 88	1,568 88	-	1,568 88	3,436 48	-	-	-
Lee,	-	122 43	122 43	-	122 43	12,028 62	365 00	-	-
Lenox,	-	983 52	7,702 29	-	7,702 29	23,258 79	-	-	-
Monterey,	-	52 96	52 96	-	52 96	882 78	-	-	63 70
Mount Washington,	-	27 45	27 45	-	27 45	288 00	100 00	6 00	23 17
New Ashford,	-	20 25	55 13	-	55 13	276 40	-	-	-
New Marlborough,	-	140 69	221 84	-	221 84	2,810 53	-	-	184 55
North Adams,	-	1,708 17	3,768 17	-	3,768 17	91,694 45	-	-	683 80
Otis,	-	55 12	55 12	-	55 12	1,076 16	-	-	66 08
Peru,	-	3 18	104 76	-	104 76	527 07	-	-	-
Pittsfield,	2,619 79	2,495 93	6,115 72	-	6,115 72	94,621 67	-	-	-
Richmond,	-	28 31	28 31	-	28 31	1,407 42	-	-	28 07
Sandisfield,	-	96 75	103 88	-	103 88	1,281 45	1,290 00	77 40	100 77
Savoy,	-	9 50	9 50	-	9 50	928 83	-	-	93 44
Sheffield,	-	32 95	122 26	-	122 26	5,254 96	1,000 00	60 00	198 46
Stockbridge,	-	630 76	2,813 52	-	2,813 52	13,736 68	-	-	-
Tyringham,	-	463 82	463 82	-	463 82	867 31	-	-	52 51
Washington,	415 74	89 21	550 45	-	550 45	1,499 45	-	-	61 78
West Stockbridge,	-	114 64	114 64	-	114 64	1,428 08	-	-	110 80
Williamstown,	-	462 61	462 61	-	462 61	19,033 41	-	-	-
Windsor,	-	54 74	54 74	-	54 74	1,066 83	375 00	22 50	75 68
Totals,	\$3,251 53	\$11,136 58	\$30,258 36	-	\$30,258 36	\$371,990 13	\$3,330 00	\$177 90	\$2,587 00

BOARD OF EDUCATION.

BARNSTABLE COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid during 25, 1904.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Barnstable,	\$452 92	-	-	-	-	-	-	-	-	-
Bourne, .	772 40	-	-	-	-	-	-	-	-	-
Brewster,	929 85	-	-	-	-	-	-	-	-	-
Chatham,	622 40	-	-	-	-	-	-	-	-	-
Dennis, .	972 40	-	-	-	-	-	-	-	-	-
Eastham,	-	-	-	-	-	-	-	-	-	-
Falmouth,	779 86	-	-	-	-	-	-	-	-	-
Harwich,	972 39	-	-	-	-	-	-	-	-	-
Mashpee,	772 39	-	-	-	-	-	-	-	-	-
Orleans, .	622 39	-	-	-	-	-	-	-	-	-
Provincetown,	772 39	-	-	-	-	-	-	-	-	-
Sandwich,	972 39	-	-	-	-	-	-	-	-	-
Tyuro,	677 91	-	-	-	-	-	-	-	-	-
Wellfleet,	464 93	-	-	-	-	-	-	-	-	-
Yarmouth,	-	-	-	-	-	-	-	-	-	-
Totals,	\$9,784 62	-	-	-	-	-	-	-	-	-

BERKSHIRE COUNTY — CONCLUDED.

Adams, .	-	-	1	578	-	-	-	\$2,000 00	-	-
Alford, .	\$814 92	-	-	-	-	-	-	-	-	-
Becket, .	1,129 85	\$20 00	-	-	-	-	-	-	-	-

SCHOOL RETURNS.

[illegible]

BRISTOL COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1903.				SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.									
	No. of persons in towns between 5 and 15 years of age.		No. of persons in towns between 7 and 14 years of age.		No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.			
Acushnet,	1,221	239	161	194	3	4	145	172	152	.88				
Attleborough,	11,335	2,163	1,540	2,377	68	144	1,572	2,000	1,823	.91				
Berkley,	949	161	112	176	4	3	119	154	135	.87				
Dartmouth,	3,669	601	416	611	12	23	412	543	468	.86				
Dighton,	1,802	303	206	327	11	5	216	278	240	.86				
Easton,	4,837	940	683	1,098	63	95	769	1,001	909	.91				
Fairhaven,	3,567	771	528	773	9	72	527	682	619	.91				
Fall River,	104,863	22,267	15,442	15,779	269	806	10,936	13,063	11,759	.90				
Freetown,	1,394	273	226	280	2	2	195	216	190	.87				
Mansfield,	4,006	801	588	811	8	87	520	735	658	.89				
New Bedford,	62,442	12,566	8,760	9,246	171	661	6,608	8,109	7,380	.91				
North Attleborough,	7,253	1,254	893	1,338	5	121	895	1,194	1,079	.90				
Norton,	1,826	274	190	293	9	11	200	217	197	.91				
Raynham,	1,540	267	190	252	3	4	178	193	176	.91				
Rehoboth,	1,840	291	227	354	12	9	248	271	227	.84				
Seekonk,	1,673	277	202	293	6	6	197	220	189	.86				
Somerset,	2,241	448	339	447	6	6	341	377	342	.91				
Swansea,	1,645	258	213	300	7	3	213	231	196	.85				
Taunton,	31,036	5,159	3,695	4,808	-	250	3,266	4,480	4,134	.92				
Westport,	2,890	557	447	489	4	16	349	405	344	.85				
Totals,	252,029	49,870	35,058	40,246	673	2,328	27,906	34,541	31,217	.90				

DUKES-COUNTY.

Chilmark,	.	.	324	\$242,285	2	42	32	42	-	3	25	25	23	.92
Cottage City,	.	.	1,100	1,668,125	6	168	123	184	-	27	126	161	148	.92
Edgartown,	.	.	1,209	837,806	5	151	103	173	-	25	100	154	137	.89
Gay Head,	.	.	173	36,717	2	40	30	46	1	5	30	40	35	.88
Gosnold,	.	.	164	240,419	1	20	13	20	-	2	13	20	17	.85
Tisbury,	.	.	1,149	1,076,894	6	145	96	172	-	43	113	151	141	.94
West Tisbury,	.	.	442	401,843	4	51	40	56	1	5	43	52	47	.91
Totals,	.	.	4,561	\$4,504,089	26	617	437	693	2	110	450	603	548	.91

BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Acushnet,	8	-	9	4	6	\$100 00	\$36 75	61-13	8-16	-	7	179	-	\$1,750 00
Attleborough,	66	6	65	30	41	-	45 93	478-7	9-11	-	-	-	9-15	-
Berkley,	7	-	9	4	4	-	33 32	59-10	8-10	-	-	-	9-10 9-8 9	617 50 517 00 495 00
Dartmouth,	23	1	28	4	7	65 00	35 16	172-10	9-2	3	3	25	-	-
Dighton,	12	-	17	4	4	-	36 88	99-3	8-5	-	-	-	-	-
Easton,	31	1	36	7	11	150 00	47 21	302-3	9-15	1	4	123	9-18	1,500 00
Fairhaven,	21	1	25	17	18	100 00	43 47	152-18	9	1	4	72	9-16	1,000 00
Fall River,	374	25	373	71	86	132 80	54 48	2,802-16	9-16	1	24	684	10	3,000 00
Freetown,	8	-	8	3	4	-	38 28	69-14	8-14	-	-	-	-	-
Mansfield,	20	3	23	9	13	92 96	45 79	156-12	8-14	1	3	100	9 7	1,200 00
New Bedford,	239	14	236	171	191	187 96	76 08	2,064-12	9-6	1	17	492	9-14	3,000 00
North Attleborough,	37	2	38	18	25	106 38	48 67	326-19	9-2	1	5	138	9-8	1,841 66
Norton,	10	1	10	5	6	60 00	36 25	74-10	8-6	1	1	10	9-16	600 00
Raynham,	8	-	9	4	6	-	38 50	70-8	8-16	-	-	-	-	-
Rehoboth,	15	-	20	1	3	-	29 40	120	8	-	-	-	-	-
Seekonk,	9	-	10	5	7	-	35 32	81	9	-	-	-	-	-
Somerset,	10	-	12	3	4	-	38 92	87-10	8-15	-	-	-	-	-
Swansea,	11	1	15	5	6	32 00	33 31	93-15	8-10	-	-	-	-	-
Taunton,	145	12	133	54	63	123 44	54 73	1,270-2	9-12	1	12	441	9-17	2,000 00
Westport,	19	6	21	3	6	39 50	31 20	177-3	9-6	1	1	7	10	500 00
Totals,	1,073	73	1,097	422	511	\$125 52	\$54 74	8,721-5	9-7	13	81	2,271	9-13	\$18,021 16

DUKES COUNTY — CONTINUED.

Chilmark, . . .	2	-	4	4	4	-	\$38 00	16	8	-	-	-	-
Cottage City, . .	7	1	6	2	4	\$85 00	41 67	51-1	8-13	1	2	23	\$765 00
Edgartown, . . .	6	1	5	2	2	65 00	37 60	41-10	8-6	1	2	30	585 00
Gay Head, . . .	2	1	1	-	-	40 00	33 00	16	8	-	-	-	-
Gosnold, . . .	1	-	1	-	-	-	40 00	8-10	8-10	-	-	-	-
Tisbury, . . .	6	1	6	5	6	88 88	41 00	50-19	8-10	1	2	22	800 00
West Tisbury, . .	4	-	4	1	1	-	38 75	34-4	8-11	-	-	-	-
Totals, . . .	28	4	27	14	17	\$69 72	\$39 40	218-4	8-7	3	6	75	\$2,150 00

BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.								Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary con- tributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxa- tion.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent of schools.	Text-books and school supplies.	School sundries.	Total expenditure for the support of public schools, being the total of the seven preceding columns.		
Acushnet, . . .	\$4,050 58	—	\$387 92	\$75 00	\$300 00	\$107 76	\$67 28	\$4,988 54	\$1,866 34	\$3,122 20
Attleborough, . . .	33,135 77	\$1,400 90	10,664 29	750 00	1,900 00	3,542 27	5,066 51	56,459 74	2,057 00	54,402 74
Berkley, . . .	1,925 00	—	241 79	103 00	300 00	209 27	20 00	2,799 06	1,486 84	1,312 22
Dartmouth, . . .	7,965 45	904 80	1,552 81	340 00	750 00	687 35	499 21	12,679 62	1,273 48	11,406 14
Dighton, . . .	4,949 85	—	856 72	29 49	481 25	468 22	83 99	6,869 52	1,352 66	5,516 86
Easton, . . .	15,876 30	1,599 85	3,869 18	75 00	1,500 00	1,677 59	787 08	25,385 00	5,190 99	20,194 01
Fairhaven, . . .	10,427 75	965 75	2,850 05	158 00	900 00	1,075 29	828 89	17,205 73	1,774 24	15,431 49
Fall River, . . .	233,106 90	754 00	63,193 40	5,153 96	3,300 00	17,185 23	6,188 29	328,881 78	7,019 50	321,862 28
Freetown, . . .	3,154 08	117 15	323 89	114 25	400 00	275 03	30 00	4,414 40	806 64	3,607 76
Mansfield, . . .	8,607 05	277 68	1,907 05	190 00	605 00	749 18	526 58	12,862 54	606 50	12,256 04
New Bedford, . . .	180,687 23	366 00	41,129 37	4,793 67	3,566 90	11,987 01	14,541 09	257,071 27	2,396 14	254,675 13
No. Attleborough, . . .	18,416 00	—	4,925 40	195 00	1,841 66	1,547 76	1,713 06	28,638 88	—	28,638 88
Norton, . . .	4,748 89	557 76	532 02	21 00	743 75	281 15	29 50	6,914 07	1,111 34	5,802 73
Raynham, . . .	3,873 97	510 00	331 21	122 93	300 00	213 82	284 71	5,636 64	838 76	4,797 88
Rehoboth, . . .	4,619 34	33 00	306 66	125 00	675 00	486 78	160 11	6,405 89	1,512 20	4,893 69
Seekonk, . . .	2,930 00	10 00	410 70	95 00	400 00	159 17	16 00	4,020 87	951 71	3,069 16
Somerset, . . .	5,866 60	804 00	536 36	75 52	400 00	327 85	81 80	8,092 13	2,284 98	5,807 15
Swanset, . . .	4,681 76	87 00	210 98	9 80	366 64	132 55	174 08	5,662 81	1,380 25	4,282 56
Taunton, . . .	86,284 30	1,227 00	16,415 31	800 00	2,400 00	5,439 53	4,521 81	117,087 95	3,092 95	113,995 00
Westport, . . .	5,019 70	303 12	1,235 81	243 00	750 00	428 38	159 12	8,139 13	2,152 43	5,986 70
Totals, . . .	\$640,326 52	\$9,918 01	\$151,880 92	\$13,469 62	\$21,880 20	\$46,961 19	\$35,779 11	\$920,215 57	\$39,154 95	\$881,060 62

DUKES COUNTY — CONTINUED.

Chilmark, . . .	\$745 62	\$250 12	\$61 50	\$42 00	\$159 96	\$66 46	\$6 25	\$1,331 91	\$1,067 92	\$263 99
Cottage City, . .	3,015 00	252 00	800 42	101 84	399 96	186 97	165 22	4,921 41	449 78	4,471 63
Edgartown, . . .	2,010 00	440 00	291 83	80 00	320 00	311 15	186 30	3,639 28	450 00	3,189 28
Gay Head, . . .	720 00	-	39 60	20 00	80 00	53 42	50 47	963 49	843 49	120 00
Gosnold, . . .	340 00	36 00	47 00	41 25	-	61 40	19 10	544 75	344 75	200 00
Tisbury, . . .	2,619 63	287 45	504 70	60 00	319 92	262 53	197 60	4,251 83	777 91	3,473 92
West Tisbury, . .	1,428 12	-	282 79	20 00	319 92	162 77	85 76	2,299 36	1,506 10	793 26
Totals, . . .	\$10,878 37	\$1,265 57	\$2,027 84	\$365 09	\$1,599 76	\$1,104 70	\$710 70	\$17,952 03	\$5,439 95	\$12,512 08

* Fiscal returns for 11 months only.

BOARD OF EDUCATION.

BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income to the public schools.
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.				Principal.	Income.	
Acushnet,	-	\$5,778 12	\$362 33	\$6,140 45	\$6,140 45	\$9,262 65	-	-	\$248 74
Attleborough,	\$14,900 67	100 00	3,025 68	18,026 35	18,026 35	72,429 09	-	-	1,276 00
Berkley,	-	52 40	158 48	210 88	210 88	1,523 10	-	-	41 53
Dartmouth,	12,058 00	102 19	543 90	12,704 09	12,704 09	24,110 23	\$2,000 00	\$74 12	495 86
Dighton,	-	98 39	146 22	244 61	244 61	5,761 47	-	-	199 70
Easton,	10,000 00	600 00	669 32	11,269 32	11,269 32	31,463 33	100,000 00	7,841 43	794 56
Fairhaven,	-	-	1,006 91	1,006 91	1,006 91	16,438 40	7,500 00	273 00	552 29
Fall River,	-	-	26,850 68	26,850 68	26,850 68	348,712 96	50,000 00	2,517 50	-
Freetown,	-	-	316 45	316 45	316 45	3,924 21	-	-	242 83
Mansfield,	-	-	1,425 94	1,425 94	1,425 94	13,681 98	-	-	-
New Bedford,	28,296 30	7,014 25	9,893 01	45,203 56	45,203 56	299,878 69	51,000 00	3,060 00	3,658 84
North Attleborough,	-	-	1,194 14	1,194 14	1,194 14	29,833 02	-	-	225 00
Norton,	-	-	493 20	493 20	493 20	6,295 93	-	-	416 25
Raynham,	-	-	305 22	305 22	305 22	5,103 10	-	-	190 82
Rehoboth,	-	-	89 97	1,886 58	1,886 58	6,780 27	-	-	394 32
Seekonk,	1,796 61	109 27	242 85	352 12	352 12	3,421 28	8,476 00	339 04	394 32
Somerset,	-	-	551 30	551 30	551 30	6,358 45	-	-	383 00
Swansea,	-	-	315 69	315 69	315 69	4,598 25	-	-	106 76
Taunton,	-	-	6,520 20	6,520 20	6,520 20	120,515 20	-	-	387 39
Westport,	-	-	763 58	763 58	763 58	6,750 28	-	-	-
Totals,	\$67,051 58	\$13,854 62	\$54,875 07	\$135,781 27	\$135,781 27	\$1,016,841 89	\$218,976 00	\$14,105 09	\$10,140 51

DUKES COUNTY — CONTINUED.

Chilmark, . . .	-	\$20 53	\$20 53	-	\$20 53	\$284 52	-	-	-
Cottage City, . .	-	156 95	156 95	-	156 95	4,628 58	-	-	\$83 89
Edgartown, . . .	-	19 47	415 09	-	415 09	3,604 37	-	-	122 40
Gay Head, . . .	-	1 17	1 17	-	1 17	121 17	-	-	-
Gosnold, . . .	-	-	-	-	-	200 00	-	-	-
Tisbury, . . .	-	88 16	290 69	-	290 69	3,764 61	-	-	121 13
West Tisbury, . .	-	-	-	-	-	793 26	-	-	-
Totals, . . .	-	\$286 28	\$884 43	-	\$884 43	\$13,396 51	-	-	\$327 42

BOARD OF EDUCATION.

BRISTOL COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1904.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils during the year.	Academies.	Private schools.	Principal.	Income.
Acushnet,	\$677 92	\$1,435 00	1	1	2	30	—	\$1,000 00	—	—
Attleborough,	—	—	—	—	—	—	—	—	—	—
Berkley,	1,129 85	—	—	—	—	—	—	—	—	—
Dartmouth,	—	—	—	—	—	—	—	—	—	—
Dighton,	772 40	—	—	—	—	—	—	—	—	—
Easton,	—	—	—	—	—	—	—	—	—	—
Fairhaven,	547 39	5,500 00	—	—	14	5,587	—	—	—	—
Fall River,	—	—	—	—	—	—	—	—	—	—
Freetown,	929 86	—	—	—	—	—	—	—	—	—
Mansfield,	547 39	15 00	1	42	11	3,308	\$6,000 00	4,650 00	—	—
New Bedford,	—	—	1	—	—	—	—	—	—	—
North Attleborough,	—	—	1	125	—	—	11,000 00	—	\$246,719 29	\$12,400 00
Norton,	929 86	—	—	—	—	—	—	—	—	—
Raynham,	929 86	—	—	—	—	—	—	—	—	—
Rehoboth,	929 86	—	—	—	—	—	—	—	—	—
Seekonk,	622 39	—	—	—	—	—	—	—	—	—
Somerset,	779 86	—	—	—	—	—	—	—	—	—
Swansea,	622 39	—	—	—	—	—	—	—	—	—
Taunton,	—	400 00	1	59	1	698	2,500 00	—	—	—
Westport,	527 91	—	—	—	—	—	—	—	—	—
Totals,	\$9,946 94	\$7,350 00	3	226	28	9,623	\$19,500 00	\$5,650 00	\$246,719 29	\$12,400 00

SCHOOL RETURNS.

DUKES COUNTY — CONCLUDED.

[illegible]

ESSEX COUNTY.

TOWNS AND CITIES.	Population - U. S. Census of 1900.	Valuation - May 1, 1903.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1903.		SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils within the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Amesbury,	9,473	\$5,245,420	28	1,567	1,152	1,153	3	132	722	1,036	970	.94
Andover,	6,813	5,732,080	32	1,137	855	1,138	99	156	813	1,112	1,027	.92
Beverly,	13,884	18,293,375	70	2,530	1,802	2,863	-	248	1,717	2,385	2,185	.92
Boxford,	704	910,170	7	101	82	101	1	1	82	80	76	.95
Danvers,	8,542	5,260,110	33	1,317	852	1,605	26	216	1,008	1,474	1,344	.91
Essex,	1,663	1,036,724	10	357	250	357	3	27	207	324	289	.90
Georgetown,	1,900	968,219	10	291	200	293	2	7	207	267	245	.92
Gloucester,	26,121	20,887,885	104	4,538	3,262	5,027	58	520	3,172	4,570	4,365	.95
Groveland,	2,376	1,050,880	14	404	302	461	2	64	298	429	403	.94
Hamilton,	1,614	2,741,560	8	255	181	262	3	3	155	222	203	.91
Haverhill,	37,175	26,588,292	134	6,276	4,478	5,609	123	666	3,393	4,980	4,491	.90
Ipswich,	4,658	3,697,787	19	794	554	816	12	102	510	741	687	.93
Lawrence,	62,559	42,882,047	204	11,428	7,881	8,225	100	524	5,791	7,311	6,850	.94
Lynn,	68,513	54,349,625	248	11,305	7,999	11,579	-	903	6,732	9,322	8,521	.91
Lynnfield,	888	735,617	4	122	89	133	1	3	75	104	90	.86
Manchester,	2,522	9,619,974	14	429	272	445	-	53	260	412	385	.93
Marblehead,	7,582	6,920,200	32	1,073	786	1,216	120	57	637	1,152	1,042	.90
Merrimac,	2,131	1,277,000	12	361	257	425	3	64	244	386	357	.92
Methuen,	7,512	4,951,008	35	1,622	1,139	1,513	10	99	1,015	1,332	1,226	.92
Middleton,	839	622,361	3	146	111	151	1	-	116	112	99	.88
Nahant,	1,152	5,186,678	4	110	78	131	-	24	65	120	111	.93
Newbury,	1,601	1,168,741	7	239	176	236	-	7	182	198	177	.89
Newburyport,	14,478	10,680,229	48	2,494	1,774	2,193	1	227	1,677	1,797	1,641	.91
North Andover,	4,243	4,810,280	21	816	574	861	6	50	614	781	722	.93
Peabody,	11,523	8,213,950	44	2,206	1,544	1,978	13	193	1,281	1,785	1,618	.91

Rockport,	.	.	.	4,592	2,998,600	19	801	576	838	-	61	616	777	727	.93
Rowley, .	.	.	.	1,391	744,377	8	218	177	208	2	2	132	183	162	.88
Salem, .	.	.	.	35,956	29,005,969	117	6,203	4,520	5,079	279	715	2,704	4,408	4,001	.91
Salisbury, .	.	.	.	1,558	800,470	9	284	194	293	-	17	204	238	214	.90
Saugus, .	.	.	.	5,084	4,233,258	29	1,194	847	1,330	11	152	876	1,170	1,044	.89
Swampscott, .	.	.	.	4,548	9,422,105	19	705	516	809	4	96	512	720	654	.91
Topsfield, .	.	.	.	1,030	939,870	4	111	84	119	-	1	89	100	87	.87
Wenham, .	.	.	.	847	3,627,850	5	155	113	140	1	-	102	115	108	.93
West Newbury, .	.	.	.	1,558	1,047,777	11	221	147	263	4	23	158	223	201	.90
Totals,	.	.	.	357,030	\$296,650,488	1,366	61,810	43,824	57,850	885	5,413	36,409	50,366	46,322	.92

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.			HIGH SCHOOLS.			
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avg'e No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Amesbury,	35	2	36	9	13	\$115 00	\$43 33	273-5	9-15	1	6	175	10	\$1,600 00
Andover,	44	3	44	20	24	134 21	54 10	299-13	9-7	1*	7	131	9-10	1,800 00
Beverly,	76	5	82	31	40	132 00	53 24	700	10	1	13	317	10	2,000 00
Boxford,	7	1	13	5	6	100 00	37 00	66-10	9-10	1†	1	15	9	1,200 00
Danvers,	41	4	39	21	22	109 00	46 59	330	10	1	8	240	10	1,600 00
Essex,	11	1	10	3	3	92 00	30 70	88	8-16	1	3	37	9-15	920 00
Georgetown,	10	-	11	9	10	-	39 00	89-15	8-19	1†	3	64	10	1,500 00
Gloucester,	129	6	121	21	26	146 00	43 40	928-4	8-18	1	15	428	8-18	2,300 00
Groveland,	16	1	15	11	11	90 00	35 93	120-1	8-11	1	3	65	9-12	900 00
Hamilton,	8	-	11	2	2	-	42 50	74-7	9-6	1	-	-	-	-
Haverhill,	166	12	163	26	30	123 72	61 26	1,304-2	9-14	1	20	512	9-15	1,800 00
Ipswich,	24	2	28	4	5	180 00	40 00	178	9-17	1	3	121	9-5	1,800 00
Lawrence,	248	17	234	47	56	142 51	52 66	1,958-8	9-12	1	24	618	9-19	2,800 00
Lynn,	260	20	259	84	110	160 00	60 52	2,480	10	2	30	811	10	2,500 00
Lynnfield,	4	-	4	2	2	-	38 00	37-19	9-9	-	-	-	-	-
Manchester,	14	2	12	8	9	116 75	48 61	135-16	9-16	1	3	73	9-16	1,250 00
Marblehead,	33	1	36	-	-	120 00	46 20	307	9-18	1	6	112	9-18	1,200 00
Merrimac,	16	2	21	4	6	85 00	38 96	114-10	9-11	1	3	65	9-10	1,200 00
Methuen,	48	4	46	16	18	108 40	46 30	310-7	8-17	1	5	105	9-13	1,368 00
Middleton,	3	3	3	2	2	-	43 00	26-2	8-13	1	-	-	-	-
Nahant,	6	3	7	4	4	135 13	61 08	37	9-5	1	2	10	9-5	1,250 00
Newbury,	7	-	8	1	3	-	38 86	64 2	9-3	1	-	-	-	-
Newburyport,	55	5	50	3	6	138 00	47 75	480	10	1	10	224	10	2,000 00
North Andover,	27	4	24	8	10	75 13	43 66	200	9-10	1	4	71	10	1,200 00
Peabody,	55	6	51	26	29	122 00	48 47	429	9-15	1	9	204	9-15	1,700 00

Rockport,	22	1	22	10	11	100 00	42 00	166-3	8-15	1	2	58	9-15	1,000 00
Rowley,	8	-	12	5	7	-	30 75	67-13	8-9	-	-	-	-	-
Salem,	139	12	128	86	98	166 25	59 00	1,050	9-7	1	18	514	9-8	2,500 00
Salisbury,	9	1	9	3	3	63 00	32 87	80-10	8-19	-	-	-	-	-
Saugus,	29	3	32	20	24	76 25	48 25	273	9-15	1	5	127	10	1,250 00
Swampscott,	23	1	22	8	11	180 00	54 64	174-17	9-4	1	4	93	9-7	1,800 00
Topsfield,	6	1	6	4	4	70 00	33 20	35-4	8-16	1	2	14	8-16	700 00
Wenham,	5	-	6	4	4	-	40 20	45-16	9-3	-	-	-	-	-
West Newbury,	12	1	13	4	6	90 00	34 18	90-15	8-4	1	2	26	9-15	900 00
Totals,	1,596	121	1,578	511	615	\$133 60	\$51 70	13,015-19	9 10	28	211	5,230	9-13	\$44,538 00

* Punchard Free School.

† Barker Free School.

‡ Perley Free School.

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.										Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.						
Anesbury, . . .	\$16,539 75	\$20 00	\$4,115 22	\$24 50	\$1,800 00	\$1,838 89	\$484 21				\$222 00	\$24,600 57	
Andover, . . .	23,618 39	819 96	4,971 09	100 00	1,800 00	1,724 87	582 70				3,518 78	30,098 23	
Beverly, . . .	47,712 06	1,569 90	9,528 38	691 50	2,200 00	6,450 08	1,813 15				—	69,965 07	
Boxford, . . .	2,449 72	91 00	315 50	121 80	100 00	378 07	30 00				1,060 78	2,425 31	
Danvers, . . .	21,917 88	588 10	4,424 65	90 67	1,260 00	958 52	2,784 55				390 00	31,634 37	
Essex, . . .	4,117 50	194 00	890 62	190 00	320 00	766 65	70 72				1,076 34	5,473 15	
Georgetown, . .	3,832 70	54 50	369 92	12 50	600 00	500 80	69 00				1,269 76	4,169 66	
Gloucester, . . .	60,633 00	1,983 75	18,571 66	1,310 00	2,300 00	4,998 45	735 00				—	90,531 86	
Groveland, . . .	6,222 26	—	1,702 39	150 00	600 00	809 68	222 23				1,537 21	8,169 35	
Hamilton, . . .	4,819 68	636 86	615 81	194 50	310 00	342 29	164 96				346 50	6,737 60	
Haverhill, . . .	102,247 31	792 25	20,838 58	1,436 10	2,300 00	7,301 41	4,203 87				458 55	138,666 97	
Ipswich, . . .	11,032 65	555 00	2,628 03	200 05	612 00	1,607 43	208 45				3,568 00	13,275 61	
Lawrence, . . .	154,819 62	—	39,336 20	2,100 00	3,000 00	11,354 57	4,882 18				—	215,492 57	
Lynn, . . .	181,239 56	—	31,946 42	3,830 00	2,700 00	14,875 74	4,447 29				698 96	238,340 05	
Lynnfield, . . .	2,424 00	200 00	521 92	60 00	183 00	190 36	13 19				1,054 86	2,537 61	
Manchester, . . .	9,209 30	488 00	2,158 32	125 00	450 00	922 47	897 51				—	14,250 60	
Marblehead, . .	16,446 00	28 00	3,229 57	50 00	1,039 98	1,200 30	3,006 15				—	25,000 00	
Merrimac, . . .	6,431 28	151 97	1,375 57	8 00	750 00	538 37	159 16				960 86	8,453 49	
Methuen, . . .	21,272 41	47 55	4,250 21	61 10	1,500 00	1,515 38	889 99				108 00	29,428 64	
Middleton, . . .	1,663 00	737 00	131 50	108 00	49 45	155 21	73 40				1,330 91	1,586 65	
Nahant, . . .	4,513 34	—	415 81	325 00	—	363 92	109 50				—	5,727 57	
Newbury, . . .	2,691 08	884 90	497 12	75 00	415 92	392 18	48 81				915 57	4,089 44	
Newburyport, .	30,135 92	—	6,000 33	650 00	1,200 00	2,337 88	675 81				2,389 50	38,629 74	
North Andover, .	12,540 17	120 00	2,603 72	190 00	775 00	1,260 29	196 79				—	17,565 97	
Peabody, . . .	28,806 00	213 80	6,036 01	675 02	1,530 00	2,561 96	481 01				139 50	40,164 30	

Rockport, . . .	9,734 00	5 00	1,999 46	236 55	1,200 00	1,000 00	1,009 80	15,184 81	245 81	14,939 00
Rowley, . . .	2,250 00	-	406 93	81 60	300 00	274 60	59 47	3,372 60	645 81	2,726 79
Salem, . . .	96,290 47	200 00	19,000 15	2,010 00	2,500 00	8,059 51	2,034 56	130,094 69	-	130,094 69
Salisbury, . . .	3,329 25	349 00	563 45	-	446 64	475 76	204 64	5,368 74	1,386 62	3,982 12
Saugus, . . .	15,921 21	-	4,732 48	100 00	1,000 00	1,640 61	615 50	24,009 80	459 80	23,550 00
Swampscott, . . .	14,809 72	-	4,832 97	25 00	-	1,912 19	96 51	21,675 39	42 25	21,633 14
Topsfield, . . .	2,628 00	499 00	323 47	40 00	300 00	243 89	79 09	4,113 45	1,022 39	3,091 06
Wenham, . . .	2,655 50	327 10	248 87	160 50	310 00	300 00	91 37	4,093 34	352 50	3,740 84
West Newbury, . . .	4,794 90	328 80	823 83	154 27	600 00	589 24	12 00	7,303 04	1,173 39	6,129 65
Totals, . . .	\$929,746 93	\$11,885 44	\$200,406 16	\$15,586 66	\$34,451 99	\$79,861 57	\$31,457 57	\$1,303,396 32	\$26,494 65	\$1,276,901 67

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Amount included in the total expenditure for school buildings, being the total of the three preceding columns.	Amount expended in the school buildings as given in the preceding column, but derived from other sources than local taxa- tion.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE IN- COME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Log tax and other income voluntarily appropriated to the public schools.
	New school- houses.	Alterations and perma- nent repairs.	Ordinary re- pairs.					Principal.	Income.	
Amesbury,	-	-	\$909 43	\$909 43	-	\$909 43	\$25,510 00	-	\$76,005 00	\$411 96
Andover,	-	-	1,999 91	1,999 91	-	1,999 91	32,098 14	-	3,000 00	-
Beverly,	\$32,582 34	\$2,242 17	4,919 70	39,744 21	-	39,744 21	109,709 28	-	3,400 00	130 93
Boxford,	-	-	453 28	453 28	-	453 28	2,878 59	-	-	-
Danvers,	-	-	1,145 55	1,145 55	-	1,145 55	32,779 92	-	-	885 43
Essex,	-	-	832 48	832 48	-	832 48	6,305 63	-	-	130 50
Georgetown,	-	-	197 56	197 56	-	197 56	4,367 22	-	-	139 97
Gloucester,	-	1,685 27	9,779 71	11,464 98	-	11,464 98	101,996 84	-	10,500 00	871 84
Groveland,	-	-	376 09	376 09	-	376 09	8,545 44	-	-	-
Hamilton,	-	88 54	265 73	354 27	-	354 27	7,091 87	-	-	280 55
Haverhill,	6,407 80	2,821 27	5,504 89	14,733 96	\$458 55	14,275 41	152,942 38	-	6,020 00	258 00
Ipswich,	-	418 00	874 76	1,292 76	-	1,292 76	14,568 37	-	74,500 00	386 86
Lawrence,	-	1,200 15	23,083 55	24,283 70	-	24,283 70	239,776 27	-	-	-
Lynn,	-	-	12,858 13	12,858 13	-	12,858 13	251,198 18	-	-	-
Lynnfield,	-	108 39	73 01	181 40	-	181 40	2,719 01	-	-	-
Manchester,	-	2,693 71	-	2,693 71	-	2,693 71	16,944 31	-	-	-
Marblehead,	40,000 00	-	417 61	40,417 61	-	40,417 61	65,417 61	-	-	-
Merrimac,	-	-	291 26	291 26	-	291 26	8,744 75	-	-	107 51
Methuen,	-	150 00	1,488 02	1,638 02	-	1,638 02	31,066 66	-	-	721 15
Middleton,	-	-	24 67	24 67	-	24 67	1,611 32	-	-	116 46
Nahant,	-	-	173 91	173 91	-	173 91	5,901 48	-	-	-
Newbury,	-	-	157 19	157 19	-	157 19	4,246 63	-	-	171 63
Newburyport,	60,285 00	455 00	600 00	61,340 00	-	61,340 00	99,969 74	-	15,000 00	675 00
North Andover,	-	11,795 83	1,353 63	13,148 96	-	13,148 96	30,714 93	-	4,000 00	161 60
Peabody,	-	-	2,174 84	2,174 84	-	2,174 84	42,339 14	-	-	951 00

Rockport,	.	-	1 538 25	461 75	2,000 00	-	2,000 00	16,939 00	-	-	-	-
Rowley, .	.	-	83 20	78 40	161 60	-	161 60	2,888 39	-	-	-	-
Salem, .	.	-	4,764 00	1,692 90	6,456 90	-	6,456 90	136,551 59	5,425 00	217 00	3,260 74	-
Salisbury,	.	-	-	114 06	114 06	-	114 06	4,096 18	-	-	146 18	-
Saugus, .	.	-	-	-	-	-	-	23,550 00	-	-	-	-
Swampscott,	.	-	-	1,814 51	1,814 51	-	1,814 51	23,447 65	1,362 49	48 04	-	-
Topsfield,	.	-	-	273 22	273 22	-	273 22	3,364 28	-	-	110 81	-
Wenham,	.	-	-	558 38	558 38	-	558 38	4,299 22	-	-	-	-
West Newbury,	.	-	150 00	75 00	225 00	-	225 00	6,354 65	-	-	-	-
Totals, .	.	\$139,275 14	\$30,193 28	\$75,023 13	\$244,491 55	\$458 55	\$244,033 00	\$1,520,934 67	\$199,212 49	\$9,839 28	\$8,692 59	-

ESSEX COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1904.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academies pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Amesbury,	-	-	2	478	1	457	\$66,379 50	\$1,309 72	\$338,142 51	\$14,231 12
Andover,	-	\$250 00	-	-	1	16	-	930 00	-	-
Beverly,	-	-	-	-	4	33	-	-	-	-
Boxford,	\$929 85	-	1	19	-	-	-	-	20,000 00	-
Danvers,	-	-	-	-	-	-	-	-	-	-
Essex,	779 85	-	-	-	-	-	-	-	-	-
Georgetown,	677 92	-	-	-	2	221	-	1,200 00	-	-
Gloucester,	-	-	-	-	-	-	-	-	-	-
Groveland,	772 39	-	-	-	-	-	-	-	-	-
Hamilton,	-	-	1	135	5	1,870	60,000 00	960 00	300,000 00	-
Haverhill,	-	-	-	-	-	-	-	-	-	-
Ipswich,	-	-	-	-	-	-	-	-	-	-
Lawrence,	-	-	-	-	10	3,672	-	-	-	-
Lynn,	-	-	-	-	6	2,360	-	-	-	-
Lynnfield,	929 86	-	-	-	-	-	-	-	-	-
Manchester,	-	-	-	-	-	-	-	-	-	-
Marblehead,	-	-	-	-	-	-	-	-	-	-
Merrimac,	779 86	-	-	-	1	20	-	4,000 00	-	-
Methuen,	-	-	-	-	1	44	-	250 00	-	-
Middletown,	677 91	-	-	-	-	-	-	-	-	-
Nahant,	-	-	-	-	-	-	-	-	-	-
Newbury,	779 86	-	-	65	1	6	-	225 00	-	-
Newburyport,	-	-	1	-	3	575	-	364 00	90,000 00	2,500 00
North Andover,	-	-	-	-	-	-	-	-	-	-
Peabody,	-	-	-	-	1	556	-	-	-	-

SCHOOL RETURNS.

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[illegible]

FRANKLIN COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1903.		SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.										
	Population — U. S. Census of 1900.	Valuation — May 1, 1903.	No. of persons in towns between 5 and 15 years of age.		No. of persons in towns between 7 and 14 years of age.		No. of different pu- pils within the year under 5 years of age.		No. of different pu- pils within the year over 15 years of age.		Average member- ship of all the schools.	Average attendance of all the schools.	Percentage of at- tendance based on average member- ship.
			No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pu- pils within the year under 5 years of age.	No. of different pu- pils within the year over 15 years of age.	No. of different pu- pils within the year between 7 and 14 years of age.						
Ashfield, .	955	\$569,983	151	115	186	6	34	118	147	134	.91		
Barnardston, .	792	406,431	127	101	157	-	23	92	137	130	.94		
Buckland, .	1,446	596,797	263	188	261	-	4	208	242	220	.91		
Charlemont, .	1,094	369,826	166	109	194	10	15	125	173	161	.93		
Colrain, .	1,749	617,686	350	256	317	-	7	246	270	250	.93		
Conway, .	1,458	701,827	232	191	254	1	32	193	213	196	.92		
Deerfield, .	1,969	1,400,689	319	218	300	2	3	232	266	232	.87		
Erving, .	973	578,045	161	123	181	1	4	135	167	157	.94		
Gill, .	1,015	448,895	144	107	151	1	2	112	119	109	.92		
Greenfield, .	7,927	6,401,781	1,419	976	1,609	55	188	994	1,461	1,340	.92		
Hawley, .	429	153,770	71	38	61	-	5	43	47	43	.92		
Heath, .	441	151,199	86	68	94	1	4	74	80	74	.93		
Leverett, .	714	292,070	123	105	122	2	7	105	105	95	.90		
Leyden, .	379	204,978	68	50	85	3	4	51	65	59	.92		
Monroe, .	305	145,485	50	36	58	5	1	25	50	42	.84		
Montague, .	6,150	3,823,115	1,408	1,038	1,158	4	103	763	1,068	987	.93		
New Salem, .	807	309,270	104	81	138	2	25	104	140	129	.92		
Northfield, .	1,966	1,256,370	240	175	253	8	5	158	192	169	.88		
Orange, .	5,520	3,293,495	1,056	734	1,111	-	129	692	1,035	964	.93		
Rowe, .	549	151,582	93	66	99	2	4	69	90	84	.93		
Shelburne, .	1,508	912,705	211	187	260	3	43	167	242	226	.93		
Shutesbury, .	382	199,087	66	51	78	-	2	55	65	59	.91		
Sunderland, .	771	473,823	129	94	126	1	4	98	110	102	.93		

Warwick,	.	.	.	619	319,280	3	114	78	94	-	6	62	74	67	90
Wendell, .	.	.	.	492	235,812	5	98	69	98	-	2	77	78	74	95
Whately, .	.	.	.	769	492,146	4	122	72	112	4	5	82	104	83	81
Totals,	.	.	.	41,209	\$24,436,147	272	7,371	5,326	7,577	111	661	5,080	6,740	6,186	92

HAMPDEN COUNTY.

Agawam,	.	.	.	2,536	\$1,488,022	15	500	386	482	5	17	339	406	355	88
Blandford,	.	.	.	836	441,003	8	143	108	160	8	20	110	125	106	84
Brimfield,	.	.	.	941	401,409	7	135	99	143	4	2	110	115	102	89
Chester, .	.	.	.	1,450	637,848	11	233	178	281	2	23	203	256	230	90
Chicopee,	.	.	.	19,167	9,660,290	63	3,447	2,435	2,799	92	196	1,890	2,345	2,061	88
East Longmeadow,	.	.	.	1,187	529,130	9	314	216	336	-	5	254	280	248	89
Granville,	.	.	.	1,050	382,149	8	176	135	198	-	14	150	163	137	85
Hamden,	.	.	.	782	386,308	6	106	85	125	1	1	95	94	82	87
Holland, .	.	.	.	169	78,133	1	23	22	29	-	-	27	20	18	89
Holyoke, .	.	.	.	45,712	40,455,740	155	10,223	7,360	6,919	295	546	4,376	5,818	5,282	91
Longmeadow,	.	.	.	811	956,509	5	167	113	149	2	7	93	148	123	83
Ludlow, .	.	.	.	3,536	2,386,432	19	501	391	561	1	20	427	449	399	89
Monson, .	.	.	.	3,402	1,718,958	22	648	438	721	14	90	480	665	611	92
Montgomery,	.	.	.	273	138,451	5	55	44	62	1	1	45	50	44	88
Palmer, .	.	.	.	7,801	3,063,438	32	1,290	905	1,192	14	99	732	978	901	92
Russell, .	.	.	.	793	551,943	7	145	104	170	7	8	105	128	114	89
Southwick,	.	.	.	1,040	520,490	10	181	141	227	4	8	156	174	156	89
Springfield,	.	.	.	62,059	77,207,898	266	11,490	9,020	12,542	776	1,128	7,660	10,290	9,341	91
Tolland, .	.	.	.	275	161,912	4	48	39	62	5	3	43	39	32	82
Wales, .	.	.	.	773	287,568	5	134	116	131	-	1	116	109	94	87
Westfield,	.	.	.	12,310	5,509,791	58	2,162	1,494	2,330	72	250	1,593	1,997	1,826	91
West Springfield,	.	.	.	7,105	8,618,742	39	1,540	1,072	1,723	146	139	1,079	1,483	1,340	90
Wilbraham,	.	.	.	1,595	977,366	12	250	182	281	3	9	202	232	207	89
Totals,	.	.	.	175,603	\$156,559,530	767	33,917	25,083	31,626	1,452	2,587	20,285	26,364	23,809	90

FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.			HIGH SCHOOLS.			
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avg'e No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Ashfield,	11	1	13	4	6	\$90 00	\$29 23	90-16	8-5	1	2	31	9-14	\$900 00
Barnardston,	7	1	9	1	1	94 00	36 00	51-6	8-10	1*	2	40	9	850 00
Buckland,	10	-	11	2	8	-	37 33	78-1	8-13	-	-	-	-	-
Charlemont,	9	-	12	1	6	-	34 10	78-5	8-13	1	1	26	10	400 00
Colrain,	15	-	18	2	3	-	27 96	125	8-19	1	-	-	-	-
Conway,	13	-	16	3	3	-	31 07	108	8-6	1	2	32	9-5	700 00
Deerfield,	13	-	16	6	9	-	34 66	109-4	8-8	1+	3	43	9-10	800 00
Erving,	6	-	9	6	7	-	38 30	52-16	8-16	-	-	-	-	-
Gill,	5	1	5	3	5	40 00	36 50	44-15	8-19	1	7	208	9-7	1,650 00
Greenfield,	47	2	45	24	25	111 67	46 75	403	9-7	-	-	-	-	-
Hawley,	6	-	9	1	6	-	29 76	48	8	-	-	-	-	-
Heath,	6	-	10	3	5	-	25 76	40	8	-	-	-	-	-
Leverett,	4	-	4	1	1	-	36 00	35	8-15	-	-	-	-	-
Leyden,	5	-	5	4	4	-	36 97	40	8	-	-	-	-	-
Monroe,	4	-	7	2	3	-	35 50	31	9	-	-	-	-	-
Montague,	37	1	40	20	21	126 28	48 13	329-10	9-8	2	8	141	{ 9-10 9-10 9	1,200 00 1,000 00 700 00
New Salem,	9	3	12	2	2	61 18	31 67	73	8-2	1	2	34	-	-
Northfield,	9	1	12	5	5	59 00	38 00	79-17	8-17	-	-	-	-	-
Orange,	29	1	32	10	13	120 00	47 65	259-12	8-19	1	6	157	9-18	1,200 00
Rowe,	5	-	6	1	5	-	32 00	38	8	-	-	-	-	-
Shelburne,	14	1	16	3	5	120 00	38 04	89-14	8-19	1	4	101	9-15	1,200 00
Shutesbury,	4	4	4	1	2	-	34 21	32	8	1	-	-	-	-
Sunderland,	5	-	5	1	1	-	37 60	36	9	-	-	-	-	-

SCHOOL RETURNS.

XXXV

HAMPDEN COUNTY — CONTINUED.

Warwick, .	.	3	-	4	3	4	-	37 33	27	9	-	-	-	-	-	-	-
Wendell, .	.	5	6	6	-	2	-	31 20	40	8	-	-	-	-	-	-	-
Whately, .	.	4	-	4	1	4	-	38 50	36	9	-	-	-	-	-	-	-
Totals,	.	285	12	330	110	156	\$88 01	\$38 55	2,375-16	8-14	11	37	813	9-9	-	-	\$10,600 00

[illegible]

* Powers Institute.

† Deerfield Academy and Dickinson High School.

† Hitchcock Free Academy.

§ Monson Academy.

FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such contributions from other sources than local taxation
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Ashfield,	\$3,498 77	\$18 20	\$343 58	\$52 75	\$625 00	\$674 77	\$13 30	\$5,226 37	\$2,676 37	\$2,550 00
Bernardston,	2,718 32	517 00	291 95	78 00	360 00	323 25	92 15	4,380 67	2,182 87	2,197 80
Buckland,	3,905 53	219 66	619 04	20 00	450 00	241 94	42 41	5,498 58	2,216 23	3,282 35
Charlton,	2,610 00	447 00	229 08	—	410 31	284 60	721 44	4,702 43	2,542 02	2,160 41
Colrain,	3,692 00	746 40	360 39	94 75	600 00	329 59	49 19	5,872 32	2,172 73	3,699 59
Conway,	3,563 00	275 50	716 70	10 00	351 72	521 07	39 70	5,477 69	1,176 69	4,301 00
Deerfield,	4,470 00	1,096 75	750 41	313 00	378 87	611 70	274 61	7,894 84	1,717 90	7,176 94
Erving,	2,316 71	402 61	589 68	44 25	486 84	287 05	22 59	4,149 73	1,815 71	2,334 02
Gill,	2,328 50	149 00	152 44	43 00	300 00	214 46	63 50	3,250 90	1,449 27	1,801 63
Greenfield,	24,913 60	1,644 15	4,771 03	100 00	2,000 00	3,023 54	1,544 15	37,996 47	1,346 70	36,649 77
Hawley,	1,500 00	143 88	73 70	34 60	273 46	77 46	173 42	2,276 52	1,353 19	923 33
Heath,	1,318 00	280 00	65 25	39 37	261 03	149 06	29 67	2,142 38	1,142 38	1,000 00
Leverett,	1,808 50	460 36	82 50	52 00	333 33	87 20	34 26	2,858 15	2,040 80	817 35
Leyden,	1,678 50	116 00	91 57	31 00	300 00	163 43	27 69	2,408 19	1,593 70	814 49
Monroe,	1,196 00	10 00	158 98	30 00	142 70	137 75	57 92	1,733 35	1,227 35	506 00
Montague,	16,758 36	1,655 09	2,854 23	100 00	1,431 60	2,199 43	1,104 14	26,102 85	885 75	25,217 10
New Salem,	2,840 57	180 20	207 19	—	696 42	347 92	5 00	4,277 30	2,536 24	1,741 06
Northfield,	3,186 04	157 75	448 50	7 51	600 00	406 75	90 21	5,256 76	1,124 00	4,132 76
Orange,	13,802 37	2,247 00	3,810 76	25 00	1,500 00	1,997 57	508 33	23,891 03	1,170 72	23,720 31
Rowe,	1,585 00	60 00	24 37	55 00	227 94	80 15	25 00	2,057 46	1,299 64	757 82
Shelburne,	4,906 03	197 95	663 07	6 00	450 00	279 73	29 94	6,532 72	1,280 33	5,252 39
Shutesbury,	990 50	442 30	51 94	40 00	230 27	79 68	21 08	1,855 77	1,173 33	682 44
Sunderland,	2,447 00	834 69	456 14	43 00	204 75	184 11	27 25	4,196 94	1,067 31	3,129 63

HAMPDEN COUNTY — CONTINUED.

Warwick, . . .	1,143 50	1,468 05	134 70	19 00	300 00	176 84	21 14	3,263 23	1,534 45	1,728 78
Wendell, . . .	1,555 87	224 15	73 50	23 50	504 40	86 96	44 67	2,513 05	1,558 24	954 81
Whately, . . .	1,386 00	353 40	156 12	—	115 57	157 06	34 85	2,203 00	1,109 39	1,093 61
Totals, . . .	\$112,118 67	\$14,707 09	\$18,176 82	\$1,261 73	\$13,533 71	\$13,123 07	\$5,097 61	\$178,018 70	\$39,393 31	\$138,625 39

Agawam, . . .	\$7,318 83	\$481 00	\$1,369 28	\$143 50	\$678 72	\$615 76	\$73 31	\$10,680 40	\$1,284 00	\$9,396 40
Blandford, . . .	2,734 20	315 15	111 88	7 00	392 42	175 05	17 00	3,752 70	1,611 74	2,140 96
Brimfield, . . .	1,925 00	131 60	169 40	46 15	412 50	188 79	6 00	2,879 44	953 31	1,926 13
Chester, . . .	4,106 00	407 00	695 80	117 00	604 12	953 87	15 00	6,898 79	2,394 88	4,503 91
Chicopee, . . .	37,901 85	1,786 50	14,684 22	350 00	2,000 00	3,351 81	1,779 15	61,853 53	45 50	61,808 03
East Longmeadow, . . .	5,173 51	—	741 99	116 20	366 36	446 36	226 10	7,070 52	2,839 50	4,231 02
Granville, . . .	2,365 40	472 70	157 75	50 00	445 00	252 89	239 94	4,043 68	1,655 44	2,388 24
Hampden, . . .	1,978 00	52 33	282 43	100 00	240 57	209 79	28 62	2,891 74	1,446 34	1,445 40
Holland, . . .	336 00	295 20	44 84	21 75	90 00	41 35	3 00	832 14	582 14	250 00
Holyoke, . . .	129,177 65	434 10	30,903 46	3,287 43	3,000 00	11,679 73	9,961 52	188,443 89	72 26	188,371 63
Longmeadow, . . .	3,639 02	239 00	525 49	41 95	222 87	211 49	109 62	5,069 44	578 25	4,491 19
Ludlow, . . .	7,237 70	—	1,797 48	350 13	795 04	768 32	130 78	11,079 45	1,708 44	9,371 01
Monson, . . .	10,317 20	575 20	1,398 00	173 15	1,050 00	865 97	331 09	14,710 61	2,174 36	12,536 25
Montgomery, . . .	1,665 80	—	96 30	17 00	223 81	131 57	10 50	2,144 98	1,679 72	465 26
Palmer, . . .	14,985 50	530 00	3,772 32	10 00	1,720 00	2,343 68	700 77	24,082 27	514 39	23,567 88
Russell, . . .	2,420 00	91 80	271 07	15 00	322 54	115 87	20 85	3,257 13	1,831 22	1,425 91
Southwick, . . .	3,449 75	—	308 83	138 25	445 00	192 91	20 00	4,554 74	2,431 68	2,123 06
Springfield, . . .	254,095 98	1,146 13	59,998 73	5,852 50	6,000 00	25,549 90	6,656 23	359,299 47	5,255 06	354,044 41
Tolland, . . .	746 00	392 00	44 50	57 60	300 00	191 29	4 51	1,735 30	1,015 93	719 37
Wales, . . .	1,730 00	244 00	341 69	—	233 75	174 61	3 15	2,727 20	1,450 89	1,276 31
Westfield, . . .	40,819 35	1,887 40	7,472 86	174 75	2,249 97	5,834 27	1,113 38	59,551 98	7,127 18	52,424 80
West Springfield, . . .	23,632 78	300 00	5,542 55	100 00	1,600 00	1,348 22	296 55	32,820 10	2,186 10	30,634 00
Wilbraham, . . .	5,070 88	371 71	475 35	5 50	500 90	884 77	27 00	7,336 11	1,313 82	6,022 29
Totals, . . .	\$562,886 40	\$10,192 82	\$131,206 22	\$11,174 26	\$23,893 57	\$56,528 27	\$21,834 07	\$817,715 61	\$41,746 84	\$775,968 77

FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.				Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and repairs.	Ordinary repairs.	Total expenditure for school buildings, being the total of the three preceding columns.				Principal.	Income.	
Ashfield,	-	\$555 14	\$133 54	\$688 68	\$197 14	\$191 54	\$2,741 54	\$900 00	\$54 00	\$76 43
Barnardston,	-	-	410 45	410 45	-	410 45	2,608 25	-	-	78 52
Buckland,	-	-	204 93	204 93	-	204 93	3,487 28	900 00	45 00	79 56
Charlemont,	-	81 55	13 40	94 95	-	94 95	2,255 36	3,600 00	163 90	76 16
Colrain,	-	53 18	89 90	143 08	-	143 08	3,842 67	2,500 00	92 88	91 06
Conway,	\$1,017 61	75 00	60 81	1,153 42	175 00	978 42	5,279 42	1,000 00	40 00	286 36
Deerfield,	-	95 73	269 06	364 79	-	364 79	7,541 73	-	-	-
Erving,	-	-	16 50	16 50	-	16 50	2,350 52	-	-	59 73
Gill,	-	64 36	52 01	116 37	-	116 37	1,918 00	-	-	-
Greenfield,	33,017 73	903 00	1,772 61	35,693 34	-	35,693 34	72,343 11	392 60	19 63	59 66
Hawley,	-	-	-	6 20	-	6 20	1,006 20	-	-	33 06
Heath,	-	-	141 39	141 39	-	141 39	958 74	-	-	-
Leverett,	-	-	88 88	129 51	-	129 51	944 00	-	-	-
Leyden,	-	40 63	-	-	-	-	506 00	-	-	-
Monroe,	-	-	-	-	-	-	30,386 24	-	-	250 52
Montague,	3,029 26	-	2,139 88	5,169 14	-	5,169 14	1,813 32	-	-	-
New Salem,	-	-	72 26	72 26	-	72 26	9,623 17	-	-	192 37
Northfield,	4,500 00	836 77	153 64	5,490 41	-	5,490 41	24,647 85	-	-	-
Orange,	-	458 18	469 36	927 54	-	927 54	950 05	-	-	38 80
Rowe,	-	192 23	-	192 23	-	192 23	5,422 95	200 00	8 08	72 78
Shelburne,	-	-	170 56	170 56	-	170 56	795 49	14,000 00	500 00	38 58
Shutesbury,	-	-	151 63	151 63	38 58	113 05	3,209 10	-	-	-
Sunderland,	-	31 82	47 65	79 47	-	79 47	-	-	-	-

Warwick, . . .	-	128 95	128 95	-	128 95	1,857 73	500 00	20 00	-
Wendell, . . .	-	15 19	15 19	-	15 19	970 00	540 00	27 00	-
Whately, . . .	-	-	206 69	-	206 69	1,300 30	-	-	-
Totals, . . .	\$38,535 34	\$6,623 54	\$6,608 80	\$51,707 68	\$710 72	\$189,682 35	\$24,532 60	\$970 49	\$1,433 59

HAMPTEN COUNTY — CONTINUED.

Agawam, . . .	-	\$221 39	\$578 09	-	\$578 09	\$9,974 49	\$4,376 43	\$169 30	\$147 77
Blandford, . . .	-	105 55	105 55	-	105 55	2,246 51	-	-	-
Brimfield, . . .	-	29 77	29 77	-	29 77	1,955 90	-	-	163 88
Chester, . . .	-	260 94	260 94	-	260 94	4,764 85	-	-	-
Chicopee, . . .	-	3,609 09	3,609 09	-	3,609 09	65,417 12	-	-	-
East Longmeadow, . . .	-	655 63	655 63	-	655 63	4,886 65	731 00	25 79	149 99
Granville, . . .	-	96 16	162 16	-	162 16	2,550 40	-	-	85 50
Hampden, . . .	-	49 35	149 35	-	149 35	1,594 75	-	-	115 55
Holland, . . .	-	3 50	3 50	-	3 50	253 50	222 22	22 75	1,734 10
Holyoke, . . .	-	12,655 29	12,655 29	-	12,655 29	201,026 92	-	-	-
Longmeadow, . . .	-	134 31	138 81	-	138 81	4,630 00	-	-	170 04
Ludlow, . . .	\$2,000 00	466 00	2,666 00	-	2,666 00	12,037 01	-	-	593 47
Monson, . . .	-	409 30	409 30	-	409 30	12,945 55	-	-	28 33
Montgomery, . . .	-	-	-	-	-	465 26	850 00	29 99	632 17
Palmer, . . .	26,218 00	576 00	28,314 00	-	28,314 00	51,881 88	-	-	61 11
Russell, . . .	-	113 10	113 10	-	113 10	1,944 32	-	-	193 87
Southwick, . . .	-	81 55	81 55	-	81 55	2,204 61	15,618 03	774 77	-
Springfield, . . .	100,385 33	14,211 76	115,823 61	-	115,662 81	469,707 22	-	-	-
Tolland, . . .	-	12 01	12 01	-	12 01	731 38	-	-	79 00
Wales, . . .	-	1 30	1 30	-	1 30	1,277 61	-	-	79 44
Westfield, . . .	-	4,051 37	4,051 37	-	4,051 37	56,476 17	-	-	-
West Springfield, . . .	-	845 00	1,538 11	-	1,538 11	32,172 11	14,339 05	764 10	-
Wilbraham, . . .	-	215 93	215 93	-	215 93	6,238 22	1,308 40	78 50	217 21
Totals, . . .	\$128,603 33	\$4,136 83	\$38,834 30	\$171,574 46	\$160 80	\$947,382 43	\$37,445 13	\$1,865 20	\$4,451 43

BOARD OF EDUCATION.

FRANKLIN COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1904.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN—		Funds whose income must be appropriated to Academies or Private Schools.
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	
Ashfield.	\$772 40								
Barnardston.	1,129 85								
Buckland.	772 40								
Charlemont.	952 92								
Colrain.	929 85								
Conway.	677 92								
Deerfield.	622 40								
Erving.	1,047 39								
Gil.	972 39		1	714			\$48,674 35	\$49,279 60	\$2,253 34
Greenfield.	—		1	16			8,600 00	—	—
Hawley.	575 00								
Heath.	972 39								
Leverett.	814 93								
Leyden.	952 91								
Monroe.	889 93								
Montague.	—								
New Salem.	1,204 86								
Northfield.	772 39		1	445			6,631 00	3,000 00	125 00
Orange.	—								
Rowe.	972 39								
Shelburne.	772 39								
Shutesbury.	877 91								
Sunderland.	972 39						3,013 50	23,339 10	1,038 59

SCHOOL RETURNS.

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[illegible]

HAMPDEN COUNTY — CONCLUDED.

Agawam,	\$779 85	\$59 00	-	-	1	47	-	-	-
Blandford,	972 40	-	-	-	-	-	-	-	-
Brimfield,	972 40	-	-	-	-	-	-	\$90,055 91	\$5,095 94
Chester,	929 85	-	-	-	3	882	-	-	-
Chicopee,	-	-	-	-	-	-	-	-	-
East Longmeadow,	929 85	-	-	-	-	-	-	-	-
Granville,	1,047 39	-	-	-	-	-	-	-	-
Hampden,	1,129 86	-	-	-	-	-	-	-	-
Holland,	500 00	-	-	-	-	-	-	-	-
Holyoke,	-	-	-	-	8	4,423	-	\$2,800 00	-
Longmeadow,	929 86	-	-	-	1	31	-	28 50	-
Ludlow,	704 86	-	-	-	-	-	-	-	-
Monson,	779 86	60 00	-	-	1	-	\$2,829 00	100,000 00	4,800 00
Montgomery,	972 39	-	-	-	-	5	-	-	-
Palmer,	-	175 00	-	-	2	322	-	1,000 00	5,000 00
Russell,	877 91	150 00	-	-	-	-	-	-	-
Southwick,	677 91	-	-	-	-	-	-	-	-
Springfield,	-	571 14	-	-	8	1,770	-	15,000 00	205,600 00
Tolland,	889 93	-	-	-	-	-	-	-	-
Wales,	1,047 39	-	-	-	1	350	-	-	-
Westfield,	-	-	-	-	-	-	-	-	-
West Springfield,	-	-	-	-	-	-	-	-	-
Wilbraham,	929 86	-	1	171	-	-	9,962 00	63,643 00	1,777 00
Totals,	\$15,071 57	\$1,015 14	1	171	25	7,830	\$12,791 00	\$18,828 50	\$11,672 94

HAMPSHIRE COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1903.				SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.							
	Population — U. S. Census of 1900.	Valuation — May 1, 1908.	No. of public schools.	No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pu- pls within the school year.	No. of different pu- pls within 5 years of age.	No. of different pu- pls within the year over 15 years of age.	No. of different pu- pls within the year between 7 and 14 years of age.	Average member- ship of all the schools.	Average attendance of all the schools.	Percentage of at- tendance based on average member- ship.
Amherst,	5,028	\$3,555,120	18	703	537	840	3	164	544	757	706	.93
Belchertown,	2,292	852,985	20	406	319	486	5	36	324	410	363	.89
Chesterfield,	611	290,379	7	97	70	115	1	6	78	84	72	.86
Cummington,	748	302,052	8	126	105	169	5	9	120	136	127	.93
Easthampton,	5,603	3,611,750	31	1,141	800	1,223	—	60	883	1,098	1,001	.91
Enfield,	1,036	737,397	7	147	124	179	1	5	124	157	151	.96
Goshen,	316	150,298	3	71	56	71	—	1	56	58	53	.91
Granby,	761	481,486	7	116	88	132	—	17	72	118	103	.88
Greenwich,	491	246,864	3	104	83	92	—	—	65	82	73	.89
Hadley,	1,789	1,123,008	11	260	213	269	—	9	216	240	221	.92
Hatfield,	1,500	1,324,661	8	230	174	240	2	5	185	223	199	.89
Huntington,	1,475	565,712	11	311	220	354	5	32	220	320	296	.92
Middlefield,	410	187,695	6	90	67	117	1	2	92	94	85	.90
Northampton,	18,643	12,607,511	78	3,172	2,182	2,970	174	306	1,849	2,749	2,544	.92
Pelham,	462	199,268	4	85	59	87	—	4	67	66	58	.88
Plainfield,	404	174,294	5	80	60	99	—	11	66	71	62	.87
Prescott,	380	172,058	5	72	50	80	—	3	59	67	62	.93
Southampton,	1,012	498,635	7	171	111	162	3	2	122	122	107	.88
South Hadley,	4,526	2,457,004	22	791	537	893	14	75	577	787	721	.92
Ware,	8,263	4,321,085	30	1,544	1,135	1,285	24	114	881	1,095	1,011	.92
Westhampton,	469	227,259	5	120	83	120	2	6	83	97	95	.98
Williamsburg,	1,926	875,570	15	370	266	413	4	31	296	380	344	.90
Worthington,	675	320,291	7	130	93	128	1	8	119	106	94	.89
Totals,	58,820	\$35,282,382	318	10,337	7,432	10,524	245	906	7,098	9,317	8,548	.92

HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.								LENGTH OF SCHOOLING.		HIGH SCHOOLS.			
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avg No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Amherst, .	23	2	26	6	7	\$120 00	\$40 00	162	9	1	6	151	9-11	\$1,000 00
Belchertown, .	20	2	24	2	6	72 03	30 00	162-10	8-1	1	2	78	9	936 66
Chesterfield, .	7	1	8	3	6	32 00	29 30	56-10	8-1	-	-	-	-	-
Cummington, .	8	-	12	1	5	-	36 92	66-2	8-5	-	-	-	-	-
Easthampton, .	36	1	37	14	15	150 00	40 21	278-10	8-19	1	4	86	9-16	1,500 00
Enfield, .	7	1	9	1	1	-	39 00	65-10	9-10	1	-	-	-	-
Goshen, .	3	-	3	2	3	-	36 67	26-7	8-15	1	-	-	-	-
Granby, .	7	-	8	2	2	-	24 90	59-11	8-11	1	1	30	8-18	540 00
Greenwich, .	3	-	5	3	3	-	37 33	26-5	8-15	-	-	-	-	-
Hadley, .	10	1	10	3	5	70 00	31 63	100	9-1	1	1	31	10	700 00
Hartford, .	8	-	9	2	3	-	35 25	72	9	-	-	-	-	-
Huntington, .	12	2	13	12	12	63 00	37 88	59	9	1	3	64	10	840 00
Middlefield, .	6	7	7	-	3	-	32 00	48-10	8	1	10	304	9-12	1,700 00
Northampton, .	96	6	101	36	38	118 00	45 77	740-7	9-10	-	-	-	-	-
Pelham, .	4	-	5	2	4	-	36 00	33-10	8-7	-	-	-	-	-
Plainfield, .	5	-	9	4	5	-	32 80	39-2	7-18	-	-	-	-	-
Prescott, .	5	-	6	1	1	-	34 00	45	9	-	-	-	-	-
Southampton, .	7	-	7	2	2	-	35 85	64	9-3	-	-	-	-	-
South Hadley, .	26	1	27	9	12	110 00	43 81	208-16	9-10	1	4	80	9-16	1,100 00
Ware, .	34	2	33	14	17	110 00	45 12	273-17	9-2	1	5	125	9-10	1,400 00
Westampton, .	5	-	8	4	4	-	32 80	42	8-10	-	-	-	-	-
Williamsburg, .	15	2	17	5	10	56 00	33 92	138	9-4	2	2	103	{ 10 10	640 00 500 00
Worthington, .	7	1	10	5	6	36 00	34 00	57-15	8-5	-	-	-	-	-
Totals, .	351	21	394	133	170	\$91 33	\$45 97	2,865-2	9	11	38	1,052	9-13	\$11,456 66

HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Amherst,	\$11,790 00	\$569 75	\$1,749 43	\$168 00	\$1,500 00	\$1,303 86	\$734 08	\$17,815 12	\$1,766 48	\$16,048 64
Belchertown,	5,632 66	—	474 06	286 00	—	291 07	66 60	6,750 39	1,782 25	4,968 14
Chesterfield,	1,720 90	75 00	120 75	43 00	375 00	216 76	33 92	2,585 33	1,387 45	1,197 88
Cummington,	2,653 00	183 00	174 78	50 00	375 00	277 63	38 16	3,751 57	2,324 07	1,427 50
Easthampton,	14,547 03	526 15	3,328 30	112 63	1,333 94	892 35	683 12	21,423 52	2,304 08	19,119 44
Enfield,	2,636 50	226 00	457 78	156 75	—	327 53	26 54	3,831 10	1,371 00	2,460 10
Goshen,	1,202 00	—	35 25	13 00	143 75	84 78	5 00	1,483 78	1,189 71	294 07
Granby,	2,424 86	593 10	338 27	10 00	375 00	385 07	76 50	4,202 80	1,595 72	2,607 08
Greenwich,	1,526 55	435 33	94 00	80 00	196 44	179 02	12 76	2,524 10	1,347 36	1,176 74
Hadley,	4,162 04	601 25	900 15	66 69	660 00	611 43	88 06	7,089 62	2,098 42	4,991 20
Hadfield,	2,938 33	500 00	648 84	60 00	480 00	436 44	20 00	5,083 61	1,736 96	3,346 65
Huntington,	4,660 00	182 40	739 58	—	539 77	496 51	78 69	6,696 95	1,906 69	4,790 26
Middlefield,	1,582 40	87 15	101 50	—	260 97	207 60	24 30	2,693 92	1,597 60	666 32
Norhampton,	50,337 40	688 75	14,972 24	667 75	1,800 00	4,736 44	1,490 63	74,693 21	2,273 29	72,419 92
Pelham,	1,242 00	76 50	67 40	—	300 00	60 30	3 00	1,749 20	1,404 00	345 20
Plainfield,	1,386 20	—	86 20	8 00	312 50	98 68	24 31	1,915 89	1,485 50	430 39
Prescott,	1,693 50	124 10	122 39	18 00	386 89	141 65	51 65	2,538 18	1,251 48	1,286 70
Southampton,	3,124 80	60 00	301 60	64 50	125 06	147 09	—	3,823 05	1,827 45	1,995 60
South Hadley,	12,061 00	190 00	3,039 75	140 00	1,125 00	1,006 30	621 05	18,183 10	1,776 89	16,406 21
Ware,	18,025 25	1,167 00	6,085 15	120 00	2,000 00	1,877 28	1,440 36	30,715 04	324 25	30,390 79
Westhampton,	1,898 51	—	89 86	42 75	110 48	73 75	12 86	2,228 21	1,028 21	1,200 00
Williamsburg,	5,157 50	385 80	828 27	227 50	750 00	567 35	59 01	7,975 43	2,737 89	5,237 54
Worthington,	1,980 00	221 40	128 87	75 00	375 00	212 00	10 29	3,002 56	1,876 04	1,126 52
Totals,	\$154,382 43	\$6,892 68	\$34,884 42	\$2,409 57	\$13,524 80	\$14,630 89	\$5,600 89	\$232,325 68	\$38,392 79	\$193,932 89

SCHOOL RETURNS.

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HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxa- tion.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE IN- COME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New school- houses.	Alterations and perma- nent repairs.	Ordinary re- pairs.					Principal.	Income.	
Amherst, . . .	\$1,221 87	-	\$675 67	\$675 67	-	\$675 67	\$16,724 31	\$6,000 00	-	\$511 64
Belchertown, . . .	-	-	145 92	1,367 79	-	1,367 79	6,335 93	\$242 40	-	-
Chesterfield, . . .	-	-	111 82	111 82	-	111 82	1,309 70	500 00	24 00	-
Cummington, . . .	-	\$77 33	163 10	240 43	-	240 43	1,667 93	-	-	106 80
Easthampton, . . .	10,769 82	-	653 18	11,423 00	-	11,423 00	30,542 41	-	-	408 12
Enfield, . . .	-	-	-	-	-	-	2,460 10	-	-	-
Goshen, . . .	-	-	9 50	9 50	-	9 50	303 57	-	-	-
Granby, . . .	-	-	190 42	190 42	-	190 42	2,797 50	-	-	-
Greenwich, . . .	-	-	23 26	23 26	-	23 26	1,200 00	500 00	30 00	-
Hadley, . . .	-	120 67	513 59	634 26	-	634 26	5,625 46	-	-	-
Hartfield, . . .	-	-	430 28	430 28	-	430 28	3,776 93	-	-	166 37
Huntington, . . .	-	-	170 45	170 45	-	170 45	4,960 71	-	-	108 43
Middlefield, . . .	-	18 21	28 75	46 96	-	46 96	713 28	-	-	-
Northampton, . . .	-	-	4,051 46	4,051 46	-	4,051 46	76,471 38	3,000 00	113 54	1,370 15
Pelham, . . .	-	-	152 39	152 39	-	152 39	497 59	-	-	98 62
Plainfield, . . .	-	-	226 29	226 29	-	226 29	656 68	-	-	-
Prescott, . . .	-	-	37 30	37 30	-	37 30	1,324 00	-	-	69 74
Southampton, . . .	-	-	125 54	125 54	-	125 54	2,121 14	-	-	-
South Hadley, . . .	-	-	835 82	835 82	-	835 82	17,242 03	-	-	378 15
Ware, . . .	-	895 92	753 63	1,649 55	-	1,649 55	32,040 81	-	-	-
Westhampton, . . .	-	-	5 00	5 00	-	5 00	1,205 00	-	-	-
Williamsburg, . . .	-	45 57	137 40	182 97	-	182 97	5,420 51	20,000 00	636 63	187 98
Worthington, . . .	-	-	15 04	15 04	-	15 04	1,141 56	3,724 83	280 13	116 79
Totals, . . .	\$11,991 09	\$1,157 70	\$9,455 81	\$22,605 20	-	\$22,605 20	\$216,538 09	\$33,724 83	\$1,326 70	\$3,522 79

HAMPSHIRE COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1904.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Amherst,	-	-	-	-	2	26	-	\$350 00	-	-
Belchertown,	\$929 85	\$10 00	-	-	-	-	-	-	-	-
Chesterfield,	972 40	-	-	-	-	-	-	-	-	-
Cummington,	972 40	-	-	-	-	-	-	-	-	-
Easthampton,	-	-	1	175	-	-	\$13,000 00	-	\$500,000 00	\$13,800 00
Enfield,	772 39	-	-	-	-	-	-	-	-	-
Goshen,	575 00	-	-	-	-	-	-	-	-	-
Granby,	1,129 86	-	-	-	-	-	-	-	-	-
Greenwich,	1,047 39	-	-	-	-	-	-	-	-	-
Hadley,	527 92	-	-	-	1	23	-	-	-	-
Hatfield,	527 92	-	1	21	1	16	900 00	1,600 00	75,000 00	1,200 00
Huntington,	929 86	-	-	-	-	-	500 00	-	42,970 47	2,732 83
Middlefield,	972 39	-	-	-	-	-	-	-	-	-
Northampton,	-	-	1	151	4	719	2,093 75	19,600 00	394,137 94	15,237 27
Pelham,	575 00	-	-	-	-	-	-	-	-	-
Plainfield,	814 93	-	-	-	-	-	-	-	-	-
Prescott,	1,129 86	20 00	-	-	-	-	-	-	-	-

SCHOOL RETURNS.

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Southern,	.	.	972 39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Hadley,	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ware, .	.	.	-	-	-	-	1	478	-	-	-	-	-	-	-	-	-	-	-
Westhampton,	.	.	972 39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Williamsburg,	.	.	929 86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Worthington,	.	.	877 91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals, .	.	.	\$15,629 72	\$30 00	3	347	9	1,262	\$16,493 75	\$21,550 00	\$1,011,408 41	\$32,970 10							

MIDDLESEX COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1903.			SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.													
	Population — U. S. Census of 1900.	Valuation — May 1, 1903.		No. of public schools.	No. of persons in towns between 5 and 15 years of age.		No. of persons in towns between 7 and 14 years of age.	No. of different pu- pls within the school year.				No. of different pu- pls within the year under 5 years of age.	No. of different pu- pls within the year over 15 years of age.	No. of different pu- pls within the year between 7 and 14 years of age.	Average member- ship of all the schools.	Average attendance of all the schools.	Percentage of at- tendance based on average member- ship.
		No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.		No. of different pu- pls of all ages in the public schools during the school year.	No. of different pu- pls within the year under 5 years of age.		No. of different pu- pls within the year over 15 years of age.	No. of different pu- pls within the year between 7 and 14 years of age.								
Acton,	2,120	\$1,681,710	11	319	224	351	—	15	29	241	312	288	.92				
Arlington,	8,603	9,820,719	43	1,657	1,178	1,729	—	15	156	1,012	1,586	1,437	.91				
Ashby,	876	481,400	5	117	83	138	—	5	19	77	116	104	.89				
Ashland,	1,525	1,001,981	9	232	167	290	—	5	29	183	266	253	.94				
Ayer,	2,446	1,648,791	11	458	322	513	—	7	63	316	483	442	.92				
Bedford,	1,208	1,175,163	4	206	149	197	—	1	13	130	169	152	.90				
Belmont,	3,929	5,491,150	21	712	502	750	—	1	85	451	662	602	.90				
Billerica,	2,775	2,147,870	15	460	383	518	—	3	57	356	461	416	.90				
Boxborough,	316	231,786	4	64	44	69	—	4	4	44	51	47	.93				
Burlington,	593	579,449	3	68	51	56	—	1	—	39	51	46	.90				
Cambridge,	91,886	104,771,910	336	15,512	10,650	15,748	1,050	2	1,361	9,546	14,379	13,250	.92				
Carlisle,	480	405,366	3	87	67	84	—	2	2	61	70	63	.90				
Chelmsford,	3,984	3,043,779	21	759	553	799	6	6	74	509	702	627	.89				
Concord,	5,652	5,201,716	20	868	636	1,186	—	6	263	672	1,009	941	.93				
Dracut,	3,253	2,125,262	16	648	466	593	—	—	10	472	498	434	.87				
Dunstable,	427	299,553	3	65	44	89	—	—	5	57	61	56	.91				
Everett,	24,336	20,976,150	127	5,401	3,723	6,434	7	7	521	4,158	5,496	5,200	.95				
Framingham,	11,302	9,158,762	48	1,738	1,365	2,193	31	31	215	1,418	1,967	1,783	.91				
Groton,	2,952	2,954,113	11	355	250	395	4	4	47	246	358	329	.92				
Holliston,	2,598	1,517,012	15	415	275	495	3	3	57	315	420	392	.93				
Hopkinton,	2,623	1,642,600	13	432	302	454	12	12	49	277	416	387	.93				
Hudson,	5,454	3,102,151	22	1,020	702	1,065	8	8	110	713	955	888	.93				
Lexington,	3,831	5,697,630	21	707	448	802	3	3	105	527	745	677	.91				
Lincoln,	1,127	2,390,300	5	132	89	109	—	—	10	77	100	93	.93				
Littleton,	1,179	958,282	7	221	154	234	—	—	37	133	210	193	.92				
Lowell,	94,969	71,995,853	287	14,332	12,456	12,598	686	686	923	8,019	10,395	9,148	.91				

Malden,	33,664	29,247,720	147	6,677	4,475	6,456	-	883	4,026	5,929	5,484	.92
Marlborough,	13,609	9,351,231	63	2,906	2,011	2,414	46	174	2,011	2,123	1,974	.93
Maynard,	3,142	3,188,340	17	728	566	728	5	32	510	674	618	.91
Medford,	18,244	20,846,000	78	3,580	2,460	4,148	57	375	3,716	3,678	3,274	.89
Melrose,	12,962	13,177,630	68	2,717	1,977	2,988	28	500	1,686	2,739	2,574	.84
Natick,	9,488	6,151,375	49	1,621	1,098	1,882	3	243	1,086	1,701	1,594	.94
Newton,	33,587	63,126,575	139	5,878	4,195	6,356	272	870	3,322	5,629	5,062	.90
North Reading,	1,035	671,193	4	153	115	140	3	2	105	136	124	.91
Pepperell,	3,701	2,156,991	20	620	434	791	3	73	554	690	621	.90
Reading,	4,969	4,589,972	21	967	682	1,033	4	70	662	956	905	.95
Sherborn,	1,483	836,475	6	212	156	205	1	-	155	178	161	.91
Shirley,	1,680	914,232	7	247	194	294	3	9	202	231	217	.94
Stoneham,	61,643	56,981,360	239	11,422	7,992	11,332	272	1,378	6,975	10,569	9,876	.93
Stonewall,	6,197	4,919,065	25	1,003	724	1,129	15	168	724	1,050	970	.92
Stow,	1,002	800,147	6	178	110	196	2	16	134	182	164	.90
Sudbury,	1,150	1,163,630	7	169	102	189	2	30	102	167	155	.93
Tewksbury,	3,683	1,772,342	12	497	357	488	-	29	335	424	366	.86
Townsend,	1,804	1,222,595	9	254	173	281	-	87	197	256	237	.93
Tyngsborough,	773	436,213	5	117	79	133	-	2	99	110	93	.85
Wakefield,	9,290	8,158,640	55	1,843	1,405	2,527	3	279	1,319	2,011	1,880	.93
Waltham,	23,481	21,680,248	74	4,023	2,993	3,273	35	375	2,047	3,064	2,872	.94
Watertown,	9,706	11,994,535	32	1,408	1,126	1,481	42	174	857	1,325	1,219	.92
Wayland,	2,303	1,761,869	13	325	258	454	4	54	290	378	353	.93
Westford,	2,624	1,648,435	16	389	304	465	-	35	308	381	338	.89
Weston,	1,834	5,235,547	7	280	202	287	1	47	172	251	234	.93
Wilmington,	1,596	1,201,420	10	337	236	389	7	22	264	335	307	.92
Winchester,	7,248	9,641,900	39	1,485	1,024	1,727	109	196	991	1,514	1,395	.92
Woburn,	14,254	10,963,384	59	3,312	2,092	3,020	69	307	1,895	2,777	2,585	.93
Totals,	565,696	\$556,239,522	2,308	100,333	72,823	102,685	2,833	10,621	64,793	91,396	83,900	.92

MIDDLESEX COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.			HIGH SCHOOLS.			
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Acton,	12	1	13	9	9	\$100 00	\$42 20	105	9-10	1	2	30	10	\$1,000 00
Arlington,	50	3	49	21	22	245 00	60 00	404-18	9-8	1	9	252	9-10	2,400 00
Ashby,	6	1	6	3	4	60 00	39 48	40-17	8-4	1	2	24	9-15	600 00
Ashland,	11	2	14	8	9	85 00	40 00	79-5	8-17	1	2	35	9-15	1,100 00
Ayer,	13	1	15	6	8	120 00	41 60	99-17	9-2	1	3	77	9-18	1,200 00
Bedford,	4	1	7	4	5	-	44 45	37	9-5	1	1	-	-	-
Belmont,	21	1	22	8	10	160 00	59 80	183-15	8-15	1	4	91	8-15	1,600 00
Billerica,	16	3	13	5	10	73 33	40 70	127-10	9-2	1*	2	66	9-4	900 00
Boxborough,	4	-	4	4	4	-	36 13	34	8-10	1	1	-	-	-
Burlington,	3	-	3	2	2	-	42 67	27-6	9-2	-	-	-	-	-
Cambridge,	428	38	402	214	232	174 85	69 92	3,360	10	3	63	1,366	{ 10 10 10	3,000 00 3,000 00 3,000 00
Carlisle,	3	-	3	-	1	-	40 00	27	9	-	-	-	{ 9-14 9-14 9-14	900 00 900 00 2,090 00
Chelmsford,	23	2	22	8	10	90 00	40 39	185-6	8-16	2	4	65	-	900 00
Concord,	30	4	27	12	12	108 50	55 48	188-10	9-8	1	10	285	-	2,090 00
Dracut,	17	-	18	14	14	-	44 25	144-14	9-1	-	-	-	-	-
Dunstable,	3	-	3	3	3	-	40 00	26-14	8-18	-	-	-	-	-
Everett,	154	9	150	84	103	146 25	53 70	1,018	8	1	15	361	9-4	2,500 00
Frammingham,	60	6	60	42	48	139 95	52 49	406-11	8-9	1	8	256	9-5	1,980 00
Groton,	13	1	12	3	5	155 00	43 00	98-17	8-19	1	3	73	9-7	1,550 00
Holliston,	16	1	17	6	8	92 30	43 40	133-13	8-18	1	3	51	9-15	900 00
Hopkinton,	15	-	17	6	9	-	44 00	115-10	8-18	1	3	64	9-17	1,000 00
Hudson,	26	2	27	6	19	122 63	46 64	185	8-16	1	5	130	9-12	1,400 00
Lexington,	23	3	26	8	9	120 00	55 00	191-2	9-2	1	5	104	9-5	1,600 00

SCHOOL RETURNS.

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Lincoln, .	5	2	5	1	55 79	46-14	9-7	1	3	42	10	1,000 00
Littleton, .	9	10	4	4	44 00	64	9-2	1	3	33	9-7	3,000 00
Lowell, .	314	295	74	99	172 37	2,657-11	9-5	1	33	924	8-18	2,400 00
Malden, .	180	175	71	88	65 63	1,306-19	8-18	1	22	640	9-13	1,800 00
Marlborough, .	67	67	16	19	126 67	576-15	9-5	1	11	316	9-13	1,200 00
Maynard, .	19	19	8	14	120 00	137-7	8-2	1	3	38	9-4	2,000 00
Medford, .	99	91	39	49	137 32	698-12	8-19	1	18	537	9-6	2,000 00
Melrose, .	93	92	36	48	117 50	612-13	9	1	15	455	9-8	2,100 00
Natick, .	51	54	24	32	120 31	460-3	9-7	1	10	281	9-19	2,000 00
Newton, .	205	195	125	130	202 50	1,299-11	9-7	1	29	828	9-5	3,250 00
North Reading, .	4	4	2	2	49 72	35-8	8-17	1	3	92	9-13	1,100 00
Pepperell, .	21	24	9	14	110 00	192	9-12	1	7	181	9-6	1,750 00
Reading, .	30	31	19	21	120 00	191-9	8-13	1	1	14	8-15	500 00
Sherborn, .	7	9	5	6	36 16	51-18	9-8	1+	1	18	10	500 00
Shirley, .	8	8	3	5	40 00	65-15	9-7	2	46	1,197	9-7	3,000 00
Somerville, .	306	310	104	129	180 20	2,254-13	8-5	1	5	154	9-7	3,000 00
Stoneham, .	29	35	10	15	170 00	206-10	9	1	1	27	9-5	1,700 00
Stow, .	6	5	1	2	84 00	54-5	8-12	1	2	23	10	782 30
Sudbury, .	8	9	4	6	72 00	60-8	8-13	1	2	52	9-17	850 00
Tewksbury, .	14	13	-	-	85 00	103-17	8-16	1	2	39	9-13	750 00
Townsend, .	10	9	4	4	75 00	79-3	8-15	-	-	-	-	-
Tyngsborough, .	5	5	4	4	41 60	43-15	9-4	1	12	302	9-10	2,000 00
Wakefield, .	62	63	24	28	92 50	506	9-5	1	14	363	9-7	2,000 00
Waltham, .	94	86	38	44	166 00	659-11	9-5	1	6	142	9-1	2,100 00
Watertown, .	42	39	15	17	150 00	296	8-17	1	3	54	8	950 00
Wayland, .	15	16	12	13	97 20	115-12	9-5	1+	2	34	9-15	1,500 00
Westford, .	16	14	7	10	124 44	144-15	9-10	1	3	57	9-10	1,800 00
Weston, .	11	10	4	4	189 44	66-10	8-11	1	2	31	9-6	900 00
Wilmington, .	12	12	7	8	90 00	85-7	9-6	1	9	279	9-10	2,000 00
Winchester, .	49	48	19	21	140 00	363-5	9	1	11	320	9-11	1,900 00
Woburn, .	70	66	10	13	22 00	532-8	9-4	49	419	10,770	9-9	\$81,193 14
Totals, .	2,812	2,749	1,174	1,406	\$148 34	21,188-19	9-4	49	419	10,770	9-9	\$81,193 14

† Westford Academy.

† United with Savin Academy.

* Howe Academy.

MIDDLESEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions from other local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerk and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Acton, . . .	\$5,223 50	\$1,313 50	\$1,206 48	\$103 10	\$480 00	\$540 01	\$137 17	\$9,003 76	\$1,154 85	\$7,848 91
Arlington, . .	34,932 50	—	8,021 54	50 00	2,500 00	3,074 41	1,048 38	49,626 83	1,036 42	48,590 41
Ashby, . . .	2,218 00	1,243 46	337 27	—	600 00	154 54	23 44	4,576 71	969 02	3,607 69
Ashland, . . .	4,649 94	981 00	1,089 75	70 25	600 00	538 24	191 33	8,120 51	1,284 36	6,836 15
Ayer, . . .	6,353 25	—	1,094 59	—	800 00	885 86	164 87	9,298 57	1,230 34	8,068 23
Bedford, . . .	3,584 84	927 75	978 82	—	425 04	200 25	99 61	6,216 31	1,153 18	5,063 13
Belmont, . . .	14,742 86	600 00	4,870 00	5 00	1,500 00	1,550 64	610 68	23,879 18	639 78	23,239 40
Billerica, . . .	7,034 73	789 09	2,369 81	180 00	800 00	403 48	243 81	11,820 92	1,471 61	10,349 31
Boxborough, .	1,932 00	—	180 96	—	300 00	138 87	18 50	2,570 33	1,888 40	681 93
Burlington, . .	1,596 40	306 45	391 38	50 00	255 00	64 98	10 75	2,674 96	959 90	1,715 06
Cambridge, . .	344,541 30	309 00	62,776 07	8,050 00	4,700 00	15,884 86	3,489 43	43,750 66	9,021 29	430,729 37
Carlisle, . . .	1,200 60	548 00	113 45	—	250 00	104 84	4 50	2,221 39	1,225 42	995 97
Chelmsford, . .	9,981 00	1,115 50	2,933 81	252 65	1,125 00	1,312 61	284 05	17,004 62	999 50	16,005 12
Concord, . . .	22,828 05	3,657 84	212 75	212 75	660 00	2,971 26	1,390 70	34,795 60	6,622 49	28,173 11
Dracut, . . .	7,393 00	503 50	1,992 68	50 00	720 00	880 88	249 05	11,789 61	2,254 57	9,534 54
Dunstable, . . .	1,053 00	847 00	309 88	—	150 00	65 80	15 28	2,440 96	802 60	1,638 36
Everett, . . .	92,805 25	—	24,186 85	900 00	2,320 00	10,721 06	5,275 82	136,208 98	—	136,208 98
Frammingham, .	33,791 66	1,872 50	7,350 22	114 25	2,000 00	2,732 18	1,437 68	49,298 49	500 04	48,798 45
Groton, . . .	6,727 50	731 50	1,025 79	15 00	750 00	726 29	498 34	10,474 42	73 72	10,400 70
Holliston, . . .	6,642 65	1,074 00	1,135 82	37 80	635 00	622 72	160 58	10,308 57	1,422 17	8,886 40
Hopkinton, . . .	6,031 80	782 32	1,955 17	22 00	900 00	828 25	443 22	10,962 76	1,714 83	9,247 93
Hudson, . . .	12,764 35	829 00	3,460 65	180 00	1,120 00	1,503 55	258 69	20,116 24	283 60	19,832 64
Lexington, . . .	15,776 25	2,397 37	5,703 06	126 33	300 00	1,760 15	629 04	26,692 20	611 88	26,080 32
Lincoln, . . .	4,813 85	1,424 90	539 96	3 00	389 62	157 82	98 02	7,427 17	811 61	6,615 56
Littleton, . . .	4,361 67	1,107 00	960 20	—	330 00	606 98	117 91	7,483 76	1,689 86	5,793 90
Lowell, . . .	233,884 42	175 00	79,882 22	5,183 75	3,000 00	13,587 57	9,594 66	345,307 62	—	345,307 62

SCHOOL RETURNS.

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Malden, . . .	126,198 88	187 00	26,374 00	1,650 47	2,500 00	6,612 96	9,436 48	172,959 79	962 75	171,997 04
Marlborough, . . .	36,343 06	1,088 22	7,319 64	750 00	2,100 00	4,022 86	1,110 04	52,733 82	150 17	52,583 65
Maynard, . . .	9,207 00	-	2,385 24	13 25	750 00	1,649 11	882 43	14,887 03	625 00	14,262 03
Medford, . . .	72,550 14	-	14,777 44	1,630 00	2,800 00	5,999 74	3,810 11	101,587 43	179 50	101,387 93
Melrose, . . .	55,985 03	527 00	11,702 45	375 00	2,200 00	6,299 38	3,010 69	80,099 55	1,500 00	78,599 55
Natick, . . .	27,030 43	36 85	6,376 71	70 00	2,000 00	2,360 40	1,781 13	39,655 58	-	39,655 58
Newton, . . .	160,964 61	974 00	22,807 13	2,482 30	3,683 40	10,740 89	4,310 39	205,962 72	-	205,962 72
North Reading, . . .	1,928 80	863 85	355 58	-	195 00	300 00	-	3,643 23	1,938 91	1,704 32
Pepperell, . . .	10,577 00	783 50	2,601 06	334 63	-	988 93	177 19	15,462 31	704 86	14,757 45
Reading, . . .	17,824 62	424 50	2,985 53	20 00	1,000 00	2,359 53	2,082 19	26,696 37	-	26,696 37
Sherborn, . . .	2,719 74	1,124 00	432 39	4 25	313 00	418 38	27 00	5,058 76	1,233 74	3,825 02
Shirley, . . .	3,371 35	331 80	820 90	62 25	428 57	314 47	93 73	5,423 07	1,183 02	4,240 05
Somerville, . . .	238,163 00	-	41,110 00	1,800 00	3,000 00	15,771 00	5,102 00	304,946 00	-	304,946 00
Stoneham, . . .	15,021 08	89 95	5,805 30	115 00	1,000 00	1,358 24	776 52	24,166 09	135 00	24,031 09
Stow, . . .	2,791 75	1,112 25	830 13	-	450 00	451 61	87 14	5,792 88	1,627 09	4,095 79
Sudbury, . . .	3,913 07	1,926 50	626 70	148 07	450 00	402 97	214 08	7,681 39	1,518 40	6,162 99
Tewksbury, . . .	6,337 40	612 00	1,189 68	150 00	720 00	762 69	-	9,771 77	1,270 68	8,501 09
Townsend, . . .	4,172 50	1,173 95	904 55	5 00	900 00	279 87	78 00	7,513 87	1,590 39	5,923 48
Tyngsborough, . . .	2,089 50	1,316 50	513 91	50 00	180 00	81 61	-	4,231 52	1,766 95	2,464 57
Wakefield, . . .	35,088 06	-	9,739 50	-	1,650 00	3,208 99	1,661 80	51,348 35	1,750 55	49,597 80
Walham, . . .	67,198 50	923 30	14,222 39	900 00	2,200 00	5,298 86	1,351 85	92,094 90	-	92,094 90
Watertown, . . .	31,501 07	534 00	5,558 34	100 00	1,950 00	3,370 83	900 78	43,915 02	-	43,915 02
Wayland, . . .	7,420 01	1,188 50	1,748 97	10 67	750 00	542 72	247 47	11,908 34	1,243 98	10,664 36
Westford, . . .	6,914 50	475 20	1,360 35	-	800 00	463 50	98 54	10,112 09	1,447 36	8,664 73
Weston, . . .	7,603 05	3,070 00	2,278 88	450 00	100 00	738 76	1,715 78	15,936 47	-	15,936 47
Wilmington, . . .	5,347 00	-	1,250 71	105 00	594 96	501 41	84 46	7,883 54	1,163 84	6,719 70
Winchester, . . .	29,456 17	691 50	6,078 76	200 00	2,000 00	3,898 60	2,464 19	44,789 22	74 00	44,715 22
Woburn, . . .	42,730 55	190 00	9,014 49	400 00	1,275 00	2,350 99	1,618 48	57,579 51	663 25	56,916 26
Totals, . . .	\$1,917,312 30	\$42,579 21	\$419,733 00	\$27,431 77	\$63,599 59	\$143,567 40	\$69,617 98	\$2,683,841 25	\$62,550 88	\$2,621,290 37

MIDDLESEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxa- tion.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE IN- COME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Log tax and other income voluntarily appropriated to the public schools.
	New school- houses.	Alterations and perma- nent repairs.	Ordinary re- pairs.					Principal.	Income.	
Acton,	-	\$711 79	\$228 29	\$940 08	-	\$940 08	\$8,788 99	\$38,652 49	-	\$294 34
Arlington,	-	-	746 49	746 49	-	746 49	49,336 90	637 00	\$1,489 48	-
Ashby,	\$12,793 54	-	4 25	12,797 79	\$4,000 00	8,797 79	12,405 48	-	22 29	101 02
Ashland,	-	-	315 35	315 35	-	315 35	7,151 50	-	-	-
Ayer,	-	122 64	369 43	492 07	-	492 07	8,560 30	-	-	239 62
Bedford,	-	-	124 40	124 40	-	124 40	5,187 53	-	-	-
Belmont,	-	146 52	433 03	579 55	-	579 55	23,818 95	-	-	357 12
Billerica,	-	-	455 58	455 58	-	455 58	10,804 89	-	-	-
Boxborough,	-	-	41 50	41 50	41 50	-	681 93	-	-	155 52
Burlington,	-	-	32 00	32 00	-	32 00	1,747 06	-	-	-
Cambridge,	113,961 24	6,654 56	9,171 91	129,787 71	20,182 50	109,605 21	540,334 58	500 00	669 10	-
Carlisle,	-	-	62 72	62 72	-	62 72	1,058 69	-	-	-
Chelmsford,	4,971 30	1,167 59	112 21	6,251 10	-	6,251 10	22,256 22	-	-	618 62
Concord,	-	-	883 83	883 83	-	883 83	29,036 94	26,300 00	1,095 73	-
Dracut,	-	-	900 80	900 80	-	900 80	10,435 34	3,000 00	109 72	362 12
Dunstable,	-	28 28	1 55	29 83	-	29 83	1,668 19	-	-	-
Everett,	-	-	5,087 06	5,087 06	-	5,087 06	141,296 04	-	-	-
Frammingham,	-	-	2,442 90	2,442 90	-	2,442 90	51,241 35	1,259 00	75 54	1,132 42
Groton,	-	-	508 85	508 85	-	508 85	10,909 55	-	-	-
Holliston,	-	-	363 76	363 76	-	363 76	9,250 16	-	-	-
Hopkinton,	-	-	241 11	241 11	-	241 11	9,489 04	5,886 00	233 44	398 02
Hudson,	-	400 00	721 40	1,121 40	-	1,121 40	20,954 04	-	20 00	274 18
Lexington,	1,215 02	2,072 67	394 88	3,682 57	-	3,682 57	29,762 89	500 00	20 00	-
Lincoln,	-	-	121 51	121 51	-	121 51	6,737 07	1,203 21	46 20	-
Littleton,	-	-	118 23	118 23	-	118 23	5,912 13	3,500 00	210 00	296 64
Lowell,	11,000 00	-	26,593 54	37,593 54	-	37,593 54	382,901 16	-	-	-

SCHOOL RETURNS.

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Malden,	-	-	6,786 66	6,786 66	178,783 70	-	-	-
Marlborough,	387 00	-	1,891 45	2,278 45	54,862 10	179 44	-	-
Maynard,	24,991 62	-	1,783 62	26,775 24	41,037 27	-	-	-
Medford,	-	13,598 19	2,769 78	16,367 97	117,755 90	-	-	-
Melrose,	-	800 00	3,875 77	4,675 77	83,275 32	-	-	-
Natick,	26,933 93	-	1,407 06	28,340 99	67,996 57	-	-	-
Newton,	11,542 74	-	11,542 74	11,542 74	217,505 46	-	-	2,906 50
North Reading,	-	-	124 07	124 07	1,828 39	-	-	191 23
Pepperell,	-	-	450 06	450 06	13,207 51	-	-	-
Reading,	-	-	340 48	340 48	27,036 85	-	-	-
Sherborn,	-	164 00	32 60	196 60	4,021 62	-	-	-
Shirley,	-	47 10	84 36	131 46	4,371 51	-	-	144 48
Somerville,	59,822 00	-	12,261 00	72,083 00	377,029 00	20,550 00	1,361 85	221 76
Stoneham,	-	-	710 41	710 41	24,741 50	11,040 57	411 71	-
Stow,	10,032 20	-	-	10,032 20	14,127 99	11,600 00	474 00	-
Sudbury,	-	-	81 00	81 00	6,243 99	-	-	119 23
Tewksbury,	-	-	1,086 04	1,086 04	9,587 13	3,000 00	155 79	230 98
Townsend,	-	-	107 11	107 11	6,030 59	-	-	-
Tyngsborough,	4,231 52	-	10 60	4,242 12	6,706 69	2,279 16	112 09	-
Wakefield,	2,717 01	2717 01	1,482 08	4,279 91	53,877 71	-	-	-
Waltham,	1,403 67	1,403 67	3,974 72	24,100 79	116,195 69	-	-	-
Watertown,	2,283 98	2,283 98	912 25	3,199 23	47,114 25	-	-	-
Wayland,	96 74	96 74	87 49	184 23	10,848 59	1,300 00	12 00	146 30
Westford,	-	-	306 59	306 59	8,971 32	-	-	-
Weston,	-	-	1,097 93	1,097 93	17,054 40	-	-	-
Wilmington,	295 19	295 19	316 35	611 54	7,331 24	-	-	240 19
Winchester,	63,263 20	-	1,547 88	64,810 78	109,526 00	-	-	-
Woburn,	-	-	3,335 52	3,335 52	60,251 78	-	-	-
Totals,	\$352,018 79	\$44,642 67	\$97,339 16	\$494,000 62	\$3,091,066 99	\$138,187 14	\$6,678 38	\$8,430 29

MIDDLESEX COUNTY — CONCLUDED

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1904.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		Principal.	Income.
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.		
Acton, .	\$779 85	-	-	-	-	-	-	-	-	-
Arlington, .	-	-	-	-	-	-	-	-	-	-
Ashby, .	1,047 40	\$134 00	-	-	-	-	-	-	-	-
Ashland, .	779 85	-	-	-	-	-	-	-	-	-
Ayer, .	779 85	-	-	-	-	-	-	-	-	-
Bedford, .	622 40	-	-	-	-	-	-	-	-	-
Belmont, .	-	-	-	-	-	-	-	-	-	-
Billerica, .	547 40	-	1	28	1	10	\$8,000 00	\$182 00	\$60,000 00	\$8,000 00
Boxborough, .	972 40	-	1*	42	-	-	20,000 00	-	-	-
Burlington, .	772 40	-	-	-	-	-	-	-	-	-
Cambridge, .	-	-	-	-	18	3,711	-	42,300 00	-	-
Carlisle, .	877 92	-	-	-	-	-	-	-	-	-
Chelmsford, .	-	-	-	-	-	-	-	-	-	-
Concord, .	-	-	-	-	4	95	-	15,300 00	125,000 00	-
Dracut, .	704 85	-	-	-	-	-	-	-	-	-
Dunstable, .	972 40	-	-	-	-	-	-	-	-	-
Everett, .	-	-	-	-	1	18	-	2,000 00	20,000 00	-
Frammingham, .	-	-	-	-	-	-	-	-	-	-
Groton, .	-	-	2	185	-	-	124,100 00	-	75,000 00	3,000 00
Holliston, .	622 39	-	-	-	-	-	-	-	-	-
Hopkinton, .	622 39	-	-	-	-	-	-	-	-	-
Hudson, .	-	-	-	-	-	-	-	-	-	-
Lexington, .	-	300 00	-	-	2	34	-	1,000 00	-	-
Lincoln, .	452 91	-	-	-	-	-	-	-	-	-
Littleton, .	929 86	-	-	-	-	-	-	-	-	-
Lowell, .	-	-	2	209	10	4,745	15,000 00	1,200 00	103,000 00	4,000 00

SCHOOL RETURNS.

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Malden,	360 01	-	1	-	4	1,276	-	6,500 00	125,000 00	-
Marlborough,	-	-	1	240	1	253	4,200 00	1,000 00	65,000 00	-
Maynard,	-	-	-	-	-	-	-	-	-	-
Medford,	729 00	-	-	-	2	25	-	1,000 00	-	-
Melrose,	483 00	-	-	-	-	-	-	-	-	-
Natick,	-	-	-	-	1	16	-	10,000 00	-	-
Newton,	-	-	3	280	6	215	31,450 00	11,400 00	-	-
North Reading,	-	-	-	-	-	-	-	-	-	-
Pepperell,	130 00	677 91	-	-	-	-	-	-	-	-
Reading,	-	704 86	-	-	-	-	-	-	19,950 00	1,199 20
Sherborn,	-	-	-	-	-	-	-	-	-	-
Shirley,	12 00	772 39	-	-	-	-	-	-	-	-
Somerville,	944 00	772 39	-	-	2	1,714	-	-	-	-
Stoneham,	-	-	-	-	-	-	-	-	-	-
Stow,	-	772 39	-	-	-	-	-	-	-	-
Sudbury,	-	779 86	-	-	-	-	-	-	-	-
Tewksbury,	-	622 39	-	-	-	-	-	-	-	-
Townsend,	60 00	622 39	-	-	-	-	-	-	-	-
Tyngsborough,	-	1,129 86	-	-	-	-	-	-	-	-
Wakefield,	-	-	-	-	1	6	-	200 00	-	-
Waltham,	-	-	1	41	3	1,348	1,800 00	1,600 00	84,560 00	3,279 16
Watertown,	-	-	-	-	2	500	-	-	-	-
Wayland,	94 30	779 86	-	-	-	-	-	-	-	-
Westford,	-	779 86	-	-	-	-	-	-	-	-
Weston,	-	-	-	-	-	-	-	-	-	-
Wilmington,	-	779 86	-	-	-	-	-	1,000 00	-	-
Winchester,	-	-	-	-	1	8	-	-	-	-
Woburn,	-	-	1	315	-	-	-	-	-	-
Totals,	\$3,246 31	\$20,678 29	12	1,340	59	13,974	\$204,550 00	\$94,682 00	\$677,510 00	\$19,478 36

* United with high school.

NANTUCKET COUNTY.

TOWNS AND CITIES.	Population — U. S. Census of 1900.	Valuation — May 1, 1903.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1903.				SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.							
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.			
Nantucket, . . .	3,006	\$3,422,245	11	422	293	442	4	56	288	398	362	.91			

NORFOLK COUNTY.

Avon, . . .	1,741	\$882,770	8	329	242	365	-	37	267	314	285	.91
Bellingham, . . .	1,682	793,490	9	273	228	293	-	6	225	252	237	.94
Braintree, . . .	5,981	4,856,510	36	1,166	820	1,385	93	121	811	1,250	1,123	.90
Brookline, . . .	19,985	87,172,900	88	3,309	2,324	3,883	331	341	2,287	3,558	3,039	.90
Canton, . . .	4,584	3,669,600	18	805	647	645	1	51	446	561	513	.91
Cohasset, . . .	2,759	6,507,544	12	400	279	456	-	55	297	401	361	.90
Dedham, . . .	7,457	10,657,625	40	1,294	927	1,653	132	210	895	1,436	1,306	.91
Dorchester, . . .	6,566	919,714	6	128	90	120	-	3	90	106	94	.88
Foxborough, . . .	3,266	2,031,110	16	508	424	642	7	65	417	523	484	.93
Franklin, . . .	5,017	3,612,415	20	998	694	979	11	110	704	896	804	.90
Holbrook, . . .	2,929	1,260,221	12	412	326	545	14	31	324	443	408	.92
Hyde Park, . . .	13,244	12,057,225	49	2,336	1,705	2,105	-	269	1,175	1,582	1,468	.93
Medfield, . . .	2,926	1,522,504	8	230	170	268	4	25	170	243	221	.91
Medway, . . .	2,761	1,432,497	13	410	282	524	5	52	327	436	404	.92
Mills, . . .	1,053	696,160	6	248	180	260	-	17	171	229	207	.90
Milton, . . .	6,578	20,976,080	51	1,247	891	1,528	136	169	732	1,333	1,202	.90
Needham, . . .	4,016	3,841,066	20	741	518	783	7	74	511	719	656	.91
Norfolk, . . .	980	625,229	5	148	108	138	-	13	95	119	108	.90

Norwood,	.	.	.	5,480	4,728,735	33	1,373	958	1,381	-	45	846	1,206	1,167	.93
Quincy, .	.	.	.	23,899	23,074,315	125	5,884	4,432	5,676	7	367	3,945	5,112	4,705	.92
Randolph,	.	.	.	3,993	1,913,450	17	653	467	695	5	44	463	632	588	.93
Sharon, .	.	.	.	2,060	2,036,777	11	355	243	350	7	25	241	290	252	.87
Stoughton,	.	.	.	3,442	3,119,100	20	958	678	912	3	69	606	784	708	.90
Walpole, .	.	.	.	3,572	3,105,890	18	671	455	718	8	82	474	662	584	.88
Wellesley,	.	.	.	5,072	10,525,767	25	679	472	829	31	120	457	746	685	.92
Westwood,	.	.	.	1,112	2,021,053	6	207	147	189	4	2	138	160	145	.90
Weymouth,	.	.	.	11,324	6,897,202	52	1,896	1,387	2,274	39	237	1,420	2,061	1,923	.93
Wrentham,	.	.	.	2,720	1,676,385	14	465	341	500	-	46	323	414	372	.90
Totals,	.	.	.	151,539	\$222,613,394	738	28,123	20,435	30,106	841	2,686	18,857	26,268	24,049	.92

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	No. of teachers re- quired by the pub- lic schools.	No. of different male teachers employed during the school year.	No. of different fe- male teachers em- ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor- mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avg No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Nantucket, . . .	14	1	13	2	2	\$100 00	\$35 00	108	9-16	1	4	70	10	\$1,000 00

NORFOLK COUNTY — CONTINUED.

Avon, . . .	9	1	9	6	9	\$100 00	\$39 00	72	9	1	2	59	9	\$900 00
Bellingham, . . .	9	1	10	5	5	—	41 11	81	9	—	6	158	9-4	1,200 00
Braintree, . . .	38	2	43	18	20	102 50	50 79	308	9-3	1	17	422	9-8	3,500 00
Brookline, . . .	133	12	128	42	97	208 00	73 28	827	9-8	1	3	73	10	1,230 00
Canton, . . .	21	2	19	6	6	108 33	50 73	180	10	1	4	82	10	1,700 00
Cohasset, . . .	16	2	16	5	6	158 75	51 69	120	10	1	8	186	9-11	2,000 00
Dedham, . . .	51	3	52	31	31	141 25	58 51	368	9-4	1	1	15	9	532 00
Dover, . . .	6	2	7	4	4	57 44	53 31	58-7	9-14	1	3	72	9-10	1,320 00
Foxborough, . . .	18	2	18	6	11	97 47	43 11	144	9	1	5	96	9-8	700 00
Franklin, . . .	27	2	28	10	17	57 00	41 80	180-16	9-1	1	2	63	9-8	1,200 00
Holbrook, . . .	13	1	15	3	6	120 00	41 83	111-19	9-16	1	12	321	10	2,000 00
Hyde Park, . . .	49	7	51	16	22	132 86	48 50	490	10	1	1	19	9-14	900 00
Medfield, . . .	8	1	8	7	7	86 00	47 29	71-18	8-19	1	1	53	9-12	1,000 00
Medway, . . .	13	3	14	4	5	78 94	41 86	115-9	8-17	1	3*	14	9-2	585 00
Millis, . . .	9	—	11	5	6	—	41 00	52-6	8-14	1	9	178	8-19	2,200 00
Milton, . . .	54	2	54	30	35	181 56	74 33	359-4	8-15	1	4	84	9-15	1,300 00
Needham, . . .	24	2	23	5	9	100 00	45 13	189-6	9-9	1	1	28	8-15	504 00
Norfolk, . . .	6	—	6	1	2	—	43 20	43	8-12	1	1	1	—	—

Norwood, .	.	.	33	2	37	20	26	110 00	52 98	314-15	9-10	1	6	133	9-18	1,400 00
Quincy, .	.	.	147	13	143	52	59	124 25	51 54	1,162-10	9-6	1	17	548	9-12	2,200 00
Randolph, .	.	.	19	3	17	4	5	119 29	44 24	155-2	9-8	1	3	99	9-3	1,400 00
Sharon, .	.	.	12	1	16	5	6	110 00	48 63	100-7	9-2	1	2	30	9-7	1,100 00
Stoughton, .	.	.	24	1	25	12	12	120 00	45 71	169-2	8-9	1	3	75	9-12	1,200 00
Walpole, .	.	.	21	4	18	14	14	85 66	48 61	172-19	9-12	1	4	107	9-15	1,320 00
Wellesley, .	.	.	36	1	40	15	16	210 00	56 50	216-3	8-13	1	5	113	9-15	2,100 00
Westwood, .	.	.	6	1	6	7	7	65 26	53 80	55-17	9-6	1	-	-	-	-
Weymouth, .	.	.	60	9	56	14	18	90 71	48 58	490-5	9-8	1	8	252	9-12	1,400 00
Wrentham, .	.	.	18	4	19	4	9	73 00	38 00	133-5	9-10	2	4	82	10 9-15	770 00
Totals, .	.	.	877	89	889	348	470	\$126 32	\$54 21	6,742-10	9-3	27	135	3,362	9-1	\$36,661 00

* Also teaching in eighth and ninth grades.

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Nantucket, . .	\$5,455 75	-	\$687 49	\$125 00	-	\$840 06	\$415 09	\$7,523 39	-	\$7,523 39

NORFOLK COUNTY — CONTINUED.

Avon, . . .	\$3,995 80	\$1,200 38	\$47 00	\$400 00	\$677 00	\$139 25	\$6,459 43	\$1,311 25	\$5,148 18
Bellingham, . . .	3,415 50	1,317 75	-	563 61	226 64	113 24	6,531 96	1,684 40	4,847 56
Braintree, . . .	19,827 50	4,200 00	40 00	1,400 00	1,848 09	466 43	29,011 02	414 00	28,597 02
Brookline, . . .	121,414 27	26,583 92	2,820 00	4,000 00	10,872 18	5,588 77	172,560 14	-	172,560 14
Canton, . . .	11,210 00	2,421 74	-	900 00	2,011 48	65 00	16,718 22	211 00	16,507 22
Cohasset, . . .	9,250 00	2,215 27	50 00	700 00	824 86	208 10	15,764 03	40 40	15,723 63
Dedham, . . .	33,786 04	6,637 17	100 00	2,200 00	3,152 09	1,464 77	47,799 46	1,363 50	46,435 96
Dover, . . .	2,841 70	448 83	25 00	300 00	123 95	54 48	4,635 96	1,717 26	2,918 70
Foxborough, . . .	8,788 23	2,160 52	175 00	900 00	643 34	763 45	14,177 34	638 00	12,807 00
Franklin, . . .	9,776 50	2,693 12	14 55	900 00	1,493 52	482 08	17,658 92	1,020 92	17,020 92
Holbrook, . . .	5,968 89	1,550 55	150 00	500 00	614 02	371 33	9,154 79	1,250 46	7,904 33
Hyde Park, . . .	32,770 32	8,760 71	250 00	2,500 00	3,816 16	2,920 04	51,017 23	-	51,017 23
Medfield, . . .	140 78	1,022 05	140 00	600 00	554 46	157 87	6,669 56	1,304 99	5,364 57
Medway, . . .	5,668 25	1,075 44	255 24	635 00	667 32	663 46	9,952 21	1,511 00	8,441 21
Millis, . . .	3,034 40	803 25	65 00	500 00	515 49	224 66	5,536 60	1,489 06	4,047 54
Milton, . . .	42,412 72	9,352 02	7 80	2,400 00	4,927 54	1,384 23	62,782 18	-	62,782 18
Needham, . . .	13,239 36	4,268 40	105 00	800 00	1,196 17	337 67	19,946 60	-	19,946 60
Norfolk, . . .	2,220 91	424 73	75 00	500 00	231 21	36 99	4,349 81	1,367 00	2,982 81

Norwood,	21,212 28	690 47	4,566 36	100 00	1,500 00	3,823 73	1,664 89	33,557 73	98 50	33,459 23
Quincy,	81,962 68	997 20	14,988 03	750 00	2,500 00	6,858 68	3,147 57	111,204 16	204 16	111,000 00
Randolph,	10,324 04	60 00	1,494 80	340 00	600 00	1,327 20	1,086 35	15,232 39	1,350 49	13,881 90
Sharon,	6,521 01	-	2,037 31	35 00	330 00	661 66	49 99	9,634 97	1,282 96	8,352 01
Stoughton,	10,637 75	-	3,668 98	318 47	660 00	1,909 70	2,039 90	19,234 80	943 94	18,290 86
Walpole,	12,190 00	1,203 00	2,647 39	-	1,200 00	1,557 41	2,900 30	19,698 10	1,564 91	18,133 19
Wellesley,	22,452 65	-	4,925 96	101 15	1,500 00	3,018 18	1,064 10	33,062 04	206 23	32,855 81
Westwood,	4,440 50	425 00	919 77	157 00	500 00	381 06	168 19	6,991 52	943 77	6,047 75
Weymouth,	32,862 47	1,582 00	8,289 07	469 50	1,680 00	4,574 68	553 51	50,011 23	67 50	49,943 73
Wrentham,	8,076 50	683 50	2,394 77	157 00	962 40	688 29	223 02	13,185 48	1,998 00	11,187 48
Totals,	\$544,354 67	\$20,698 45	\$123,068 29	\$6,747 71	\$32,131 01	\$59,198 11	\$26,339 64	\$812,537 88	\$24,333 12	\$788,204 76

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxa- tion.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE IN- COME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Log tax and other income voluntarily appropriated to the public schools.
	New school- houses.	Alterations and perma- nent repairs.	Ordinary re- pairs.					Prinicipal.	Income.	
Nantucket, . . .	-	-	\$674 45	\$674 45	-	\$674 45	\$8,197 84	-	-	\$204 50

NORFOLK COUNTY — CONTINUED.

Avon, . . .	-	-	\$87 35	\$87 35	-	\$87 35	\$5,235 53	-	-	\$253 86
Beltingham, . . .	-	-	40 25	40 25	-	40 25	4,887 81	-	-	336 45
Braintree, . . .	-	\$1,460 16	1,208 08	2,668 24	-	2,668 24	31,265 26	\$6,972 50	\$350 00	-
Brookline, . . .	\$67,073 96	8,363 95	9,719 38	85,157 29	-	85,157 29	257,717 43	-	-	-
Canton, . . .	-	-	985 51	985 51	-	985 51	17,492 73	-	-	675 86
Colliasset, . . .	-	-	772 78	772 78	-	772 78	16,496 41	1,000 00	40 40	307 23
Dedham, . . .	-	-	1,960 15	1,960 15	-	1,960 15	48,396 11	-	-	-
Dover, . . .	-	-	281 30	281 30	-	281 30	3,200 00	-	-	-
Foxborough, . . .	3,129 70	150 00	619 98	3,899 68	-	3,899 68	16,506 68	-	-	-
Franklin, . . .	-	1,879 34	616 67	2,496 01	\$200 00	2,496 01	19,516 93	-	-	545 47
Holbrook, . . .	-	250 00	203 64	453 64	-	453 64	8,357 97	-	-	656 74
Hyde Park, . . .	-	2,950 00	3,000 00	5,950 00	-	5,950 00	56,967 23	-	-	-
Medfield, . . .	-	-	190 96	190 96	-	190 96	5,555 53	3,540 00	141 60	-
Medway, . . .	-	-	150 19	150 19	-	150 19	8,591 40	-	-	-
Millis, . . .	-	160 80	52 14	212 94	-	212 94	4,260 48	-	-	-
Milton, . . .	-	1,234 45	2,632 86	3,867 31	-	3,867 31	66,649 49	-	-	-
Needham, . . .	-	1,567 19	527 39	2,194 58	-	2,194 58	22,141 18	-	-	-
Norfolk, . . .	-	105 59	110 33	215 92	-	215 92	3,198 73	-	-	174 79

Norwood, . . .	32,713 25	-	100 37	32,813 62	-	32,813 62	66,272 85	-	-	-	-	-
Quincy, . . .	55,000 00	1,500 00	3,172 63	59,672 63	-	59,672 63	170,672 63	1,000 00	40 00	478 84	478 84	-
Randolph, . . .	-	-	-	-	-	-	13,881 90	15,398 83	1,054 16	-	-	-
Sharon, . . .	-	-	-	-	-	-	8,679 99	2,380 00	156 60	-	-	-
Stoughton, . . .	7,993 49	377 06	327 98	327 98	-	327 98	27,804 53	1,000 00	37 84	374 10	374 10	-
Walpole, . . .	-	-	1,143 12	9,513 67	-	9,513 67	18,699 79	-	-	-	-	-
Wellesley, . . .	-	8,569 56	566 60	566 60	-	566 60	42,309 27	-	-	-	-	-
Westwood, . . .	-	1,995 00	883 90	9,453 46	-	9,453 46	8,280 96	-	-	-	-	-
Weymouth, . . .	-	-	238 21	2,233 21	-	2,233 21	62,665 45	-	-	-	-	-
Wrentham, . . .	10,510 11	-	2,211 61	12,721 72	-	12,721 72	11,778 61	1,818 26	102 08	500 66	773 27	-
	-	-	591 13	591 13	-	591 13	-	-	-	-	-	-
Totals, . . .	\$176,420 51	\$30,663 10	\$32,394 51	\$239,478 12	\$200 00	\$239,278 12	\$1,027,482 88	\$33,089 59	\$1,922 68	\$5,577 27	\$5,577 27	-

NANTUCKET COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1904.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Nantucket,	-	-	-	-	-	-	-	-	\$56,761 00	\$2,500 00

NORFOLK COUNTY — CONCLUDED.

Avon,	\$677 92	-	-	-	-	-	-	-	-	-
Bellingham,	929 85	\$75 00	1	130	-	353	\$1,000 00	\$7,000 00	\$325,000 00	\$19,000 00
Brantree,	-	-	-	-	-	264	-	1,700 00	-	-
Brookline,	-	-	-	-	-	-	-	-	-	-
Canton,	-	-	-	-	-	-	-	-	-	-
Cohasset,	-	-	-	-	-	-	-	-	-	-
Dedham,	-	-	-	-	-	-	-	-	-	-
Dover,	929 85	-	-	-	-	10	-	500 00	-	-
Foxborough,	779 85	-	-	-	-	-	-	-	-	-
Franklin,	-	25 00	1	186	-	-	9,675 00	-	108,000 00	5,300 00
Holbrook,	622 39	-	-	-	-	-	-	-	-	-
Hyde Park,	-	-	-	-	-	747	-	-	-	-
Medfield,	622 39	-	-	-	-	-	-	-	-	-
Medway,	622 39	-	-	-	-	-	-	-	-	-
Millis,	772 39	11 73	-	-	-	-	-	-	-	-
Milton,	-	-	-	-	-	-	-	-	-	-
Needham,	-	-	-	-	-	-	-	-	-	-
Norfolk,	772 39	82 88	-	-	-	-	-	-	-	-

SCHOOL RETURNS.

lxvii

Norwood,	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quincy,	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Randolph,	.	.	622 39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sharon,	.	.	452 91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stoughton,	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Walpole,	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wellesley,	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Westwood,	.	.	622 39	-	1	124	3	227	20,000 00	108,000 00	300,000 00	-	-	-	-	-	-	21,000 00	-
Weymouth,	.	.	-	-	-	-	1	23	-	-	-	-	-	-	-	-	-	-	-
Wrentham,	.	.	779 86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals,	.	.	\$9,206 97	\$194 61	3	440	18	2,165	\$30,675 00	\$129,700 00	\$1,123,000 00	-	-	-	-	-	-	\$64,300 00	-

PLYMOUTH COUNTY.

TOWNS AND CITIES.	Population — U. S. Census of 1900.	Valuation — May 1, 1903.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1903.				SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.						Percentage of at- tendance based on average member- ship.
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pu- pls within the school year.	No. of different pu- pls within 5 years of age.	No. of different pu- pls within the year over 15 years of age.	No. of different pu- pls within the year between 7 and 14 years of age.	Average member- ship of all the schools.	Average attendance of all the schools.			
Abington,	4,489	\$2,517,323	20	376	279	961	2	112	607	847	783	847	783	.92
Bridgewater,	5,806	2,612,690	25	760	543	933	41	111	511	843	776	843	776	.92
Brockton,	40,063	31,227,178	172	7,609	5,483	7,761		746	5,483	6,864	6,071	6,864	6,071	.88
Carver,	1,104	1,392,195	11	156	120	198		15	140	168	148	168	148	.88
Duxbury,	2,075	1,819,113	12	221	190	298		35	172	240	214	240	214	.89
East Bridgewater,	3,025	1,620,181	14	481	344	571		65	352	534	499	534	499	.93
Halifax,	522	301,623	5	79	59	100	3	5	60	79	72	79	72	.92
Hanover,	2,152	1,361,789	10	336	229	362	7	31	240	332	299	332	299	.90
Hanson,	1,455	723,385	8	206	146	213	4	2	155	185	163	185	163	.89
Hingham,	5,059	4,316,647	25	721	518	874		157	521	801	732	801	732	.91
Hull,	1,703	4,425,035	6	197	137	239		22	152	167	159	167	159	.95
Kingston,	1,955	1,415,865	13	367	251	414	2	48	260	376	346	376	346	.92
Lakeville,	938	631,292	6	175	145	168		2	123	138	118	138	118	.85
Marion,	902	1,496,890	6	134	103	154		6	117	135	126	135	126	.93
Marshfield,	1,810	1,634,510	11	247	185	301	4	43	186	250	221	250	221	.86
Mattapoisett,	1,061	1,579,296	6	169	126	190	3	16	122	161	145	161	145	.90
Middleborough,	6,885	4,168,715	30	1,090	782	1,346		151	854	1,153	1,049	1,153	1,049	.90
Norwell,	1,560	833,953	9	203	148	244		23	141	218	194	218	194	.89
Pembroke,	1,240	844,210	7	189	134	199	2	2	130	170	150	170	150	.88
Plymouth,	9,592	9,116,574	42	1,655	1,030	1,774	4	136	1,230	1,587	1,447	1,587	1,447	.91
Plympton,	488	337,943	3	56	44	58	1	2	37	50	45	50	45	.90
Rochester,	986	512,100	6	156	109	182		4	124	147	120	147	120	.82
Rockland,	5,327	3,269,032	25	1,051	765	1,115	5	110	735	1,037	964	1,037	964	.92
Scituate,	2,470	3,369,645	11	429	299	488		63	299	424	383	424	383	.90
Wareham,	3,432	2,897,215	22	608	422	688	2	41	422	563	523	563	523	.93

West Bridgewater, .	1,711	1,089,194	10	300	208	322	4	5	208	278	257	.92
Whitman, .	6,155	3,832,850	22	1,076	723	1,227	10	110	814	1,116	1,018	.91
Totals, .	113,985	\$89,346,443	537	19,047	13,522	21,380	104	2,075	14,195	18,863	17,022	.90

SUFFOLK COUNTY.

Boston, .	560,892	\$1,220,457,323	1,886	98,487	67,288	97,871	2,503	8,861	54,545	86,266	76,884	.89
Chelsea, .	34,072	24,099,064	120	6,677	5,271	6,975	-	501	4,700	5,788	5,333	.92
Revere, .	10,395	11,957,760	58	2,432	1,648	2,834	5	156	1,676	2,321	2,147	.93
Winthrop, .	6,058	8,521,425	28	1,177	823	1,320	-	165	843	1,115	1,011	.91
Totals, .	611,417	\$1,265,035,572	2,092	108,773	75,030	109,000	2,508	9,683	61,764	95,490	85,375	.89

PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.			HIGH SCHOOLS.			
	No. of teachers re- quired by the pub- lic schools.	No. of different male teachers employed during the school year.	No. of different fe- male teachers em- ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor- mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avg'e No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
Abington, .	26	6	26	17	19	\$102 90	\$51 16	183-6	9-3	1	4	92	9-8	\$1,300 00
Bridgewater, .	32	2	35	28	28	180 00	61 30	213-16	8-18	1	5	134	9-11	1,700 00
Brocton, .	198	16	196	88	120	162 08	59 19	1,537-17	9-1	1	22	647	8-19	2,100 00
Carver, .	11	3	8	2	6	44 00	34 50	88-4	8-2	1	2	28	9-15	600 00
Duxbury, .	12	2	11	3	4	82 50	38 00	100-16	8-8	1*	3	44	9-12	1,000 00
East Bridgewater, .	18	2	19	11	12	100 00	42 53	122-11	8-15	1	2	58	9-2	1,000 00
Halifax, .	5	1	5	2	2	45 31	40 03	40-15	8-3	1	2	57	9-12	900 00
Hanover, .	12	3	9	1	3	58 33	36 00	93-4	9-3	1	2	—	—	—
Hanson, .	8	—	9	3	5	—	35 76	68-18	8-12	1	6	161	10	1,600 00
Hingham, .	25	4	23	20	21	115 00	55 39	250	10	1	—	—	—	—
Hull, .	6	2	4	5	5	75 00	48 00	58-10	9-15	1	2	85	9-12	1,000 00
Kingston, .	13	1	13	8	9	100 00	43 67	114-11	8-16	1	—	—	—	—
Lakeville, .	6	—	7	3	6	—	32 44	52-7	8-14	1	6	65	9-5	2,000 00
Marion, .	6	—	6	3	3	—	42 33	54	9	1†	—	—	—	—
Marshfield, .	12	3	16	3	4	76 44	37 10	96-14	8-16	1	2	50	9	800 00
Mattapoisett, .	8	1	8	2	4	70 00	35 71	54-6	9-1	1	2	20	9-7	700 00
Middleborough, .	38	5	41	7	7	95 00	43 24	281	9-7	1	5	168	10	1,800 00
Norwell, .	10	1	10	2	4	91 59	36 43	85-10	9-10	1	2	42	9-10	900 00
Pembroke, .	8	1	8	1	1	60 00	31 06	60-19	8-14	1	1	26	8-9	555 00
Plymouth, .	51	4	60	17	21	12 50	41 02	401	9-11	1	6	138	9-15	1,600 00
Plympton, .	3	1	4	2	4	44 00	40 00	23-11	8-10	—	—	—	—	—
Rochester, .	6	1	6	5	6	45 00	37 80	53-11	8-18	1	5	136	9-8	1,400 00
Rockland, .	30	6	27	12	12	80 00	48 17	231-5	9-5	1	2	47	10	1,000 00
Schuata, .	12	3	10	2	2	75 44	45 44	101	9-4	1	3	98	10	1,000 00
Wareham, .	22	2	29	10	19	100 00	37 86	176	8-10	1	—	—	—	—

West Bridgewater, .	10	-	14	5	7	45 23	87-5	8-14	27	8-14	600 00
Whitman, .	28	2	28	13	13	51 57	202-13	9-4	104	9-12	1,365 00
Totals, . . .	616	72	632	275	347	\$49 02	4,853-9	9	2,227	9-9	\$24,920 00

SUFFOLK COUNTY — CONTINUED.

Boston, .	2,257	271	2,069	1,593	1,662	\$216 90	17,728	9-8	260	7,320	120-5	\$49,560 00
Chelsea, .	145	9	148	65	69	165 62	1,096-9	9-2	17	396	9	2,800 00
Revere, .	68	5	69	32	41	120 00	570	9-16	5	88	9 15	1,400 00
Winthrop, .	36	4	40	20	23	112 50	256-17	9-3	6	127	9-4	1,500 00
Totals, . . .	2,504	289	2,326	1,710	1,795	\$212 18	19,651-6	9-7	288	7,931	9-5	\$55,260 00

* Partridge Academy.

† Tabor Academy.

‡ Howard Seminary.

PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Abington,	\$14,739 75	\$748 00	\$3,152 62	\$52 00	\$1,041 67	\$1,528 45	\$1,091 22	\$22,353 71	\$1,282 84	\$21,070 87
Bridgewater,	22,878 00	803 40	1,547 44	9 63	1,041 61	1,475 56	565 65	28,321 29	9,335 03	18,986 26
Brockton,	130,193 55	175 00	26,764 11	1,025 50	2,800 00	10,390 05	5,712 78	177,060 49	151 00	176,909 49
Carver,	3,655 00	343 00	547 43	92 50	600 00	813 74	27 00	6,078 67	1,423 34	4,655 33
Duxbury,	4,154 92	—	461 40	93 55	500 00	325 55	702 55	6,237 97	692 84	5,545 13
East Bridgewater,	8,000 00	516 80	1,639 34	—	700 00	602 19	487 09	11,945 42	1,655 18	10,290 24
Hallfax,	2,043 75	44 56	82 57	15 00	166 66	121 21	15 40	2,489 15	1,489 15	1,000 00
Hanover,	5,691 75	410 00	869 37	130 00	500 00	694 97	100 51	8,396 60	1,069 06	7,327 54
Hanson,	3,110 00	101 25	153 23	94 80	500 00	367 43	80 63	4,407 34	1,501 92	2,905 42
Hingham,	15,085 00	980 00	4,824 94	100 00	1,200 00	1,598 38	1,742 51	25,550 83	1,903 55	23,647 28
Hull,	3,645 30	938 00	1,948 00	235 00	220 00	351 79	702 69	8,093 78	—	8,093 78
Kingston,	6,502 95	562 25	1,488 12	45 73	600 00	275 43	890 82	10,365 30	1,534 98	8,830 32
Lakeville,	2,487 50	482 00	128 04	69 90	450 00	463 30	39 60	4,120 34	963 90	3,156 44
Marion,	2,470 00	455 50	517 24	123 02	600 00	503 41	284 35	4,353 52	963 90	3,389 62
Marshfield,	4,815 81	505 00	577 90	175 75	500 00	445 25	7,469 45	7,469 45	977 93	6,491 52
Matapoisett,	3,432 00	390 76	1,079 21	90 00	300 00	323 30	53 31	5,668 58	979 54	4,689 04
Middleborough,	16,666 80	2,521 27	3,886 57	184 00	1,558 31	1,065 74	395 72	26,278 41	—	26,278 41
Norwell,	4,110 00	1,868 07	607 29	102 73	500 00	487 78	40 95	7,716 82	1,053 01	6,663 81
Pembroke,	2,756 00	116 25	240 12	71 50	500 00	270 66	31 88	3,986 41	846 67	3,139 74
Plymouth,	24,928 35	645 88	6,297 00	100 00	2,000 00	1,676 67	783 24	36,431 14	18 25	36,412 89
Plympton,	1,527 00	232 03	127 24	73 40	200 00	248 46	127 40	2,555 53	1,046 08	1,489 45
Rochester,	17,296 42	214 40	146 52	65 30	450 00	401 05	6 64	3,563 31	1,240 87	2,322 44
Rockland,	2,296 42	22 00	4,391 29	—	1,000 00	1,202 07	433 22	2,474 50	507 50	23,837 50
Scituate,	6,393 35	3,108 57	2,020 58	132 75	500 00	727 16	62 40	12,944 81	584 76	12,360 05
Wareham,	8,780 25	—	1,662 36	363 32	900 00	1,146 94	467 15	13,320 02	750 00	12,570 02

West Bridgewater,	4,603 39	516 50	837 31	17 77	500 00	344 33	43 92	6,863 22	960 43	5,902 79
Whitman, . . .	15,810 42	—	4,888 16	70 00	1,283 33	1,700 76	833 98	24,586 65	430 00	24,156 65
Totals, . . .	\$338,056 66	\$16,750 49	\$70,885 40	\$3,532 65	\$21,111 58	\$30,174 51	\$15,552 47	\$496,063 76	\$33,726 07	\$462,337 69

SUFFOLK COUNTY — CONTINUED.

Boston, . . .	\$2,536,672 44	\$1,432 83	\$411,580 81	\$53,662 82	\$28,680 00	\$71,589 57	\$86,547 09	\$3,190,165 56	\$91,627 29	\$3,098,538 27
Chelsea, . . .	90,670 54	—	32,469 26	1,800 00	2,800 00	7,746 04	1,834 50	137,320 34	1,375 00	135,945 34
Revere, . . .	42,044 48	63 00	10,995 90	410 15	2,000 00	8,680 26	1,073 30	65,267 09	69 00	65,198 09
Winthrop, . . .	22,352 09	75 00	5,347 35	75 00	1,500 00	2,685 57	377 05	32,412 06	150 00	32,262 06
Totals, . . .	\$2,691,739 55	\$1,570 83	\$460,393 32	\$55,947 97	\$34,980 00	\$90,701 44	\$89,831 94	\$3,425,165 05	\$93,221 29	\$3,331,943 76

PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for school buildings, that is, for all schools and for school buildings, for support of the public schools and for school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and repairs.	Ordinary repairs.					Principal.	Income.	
Abington, . . .	\$42,988 28	—	\$513 64	\$43,501 92	—	\$43,501 92	\$64,572 79	—	—	\$559 68
Bridgewater, . . .	—	\$2,784 42	717 27	3,501 69	—	3,501 69	22,487 95	\$6,300 00	\$350 59	1,447 22
Brockton, . . .	—	14,348 78	—	14,348 78	—	14,348 78	191,258 27	7,000 00	—	205 11
Carver, . . .	3,096 94	—	246 52	3,343 46	—	3,343 46	7,998 79	—	355 00	340 68
Duxbury, . . .	—	—	208 32	208 32	—	208 32	5,753 45	—	—	202 67
East Bridgewater, . . .	—	—	445 48	445 48	—	445 48	10,735 72	—	—	97 21
Halifax, . . .	—	—	27 45	27 45	—	27 45	1,027 45	—	—	281 43
Hanover, . . .	—	162 64	214 20	376 84	—	376 84	7,704 38	—	—	552 14
Hanson, . . .	—	—	199 30	199 30	—	199 30	3,104 72	1,000 00	40 40	—
Hingham, . . .	2,173 57	8,262 43	861 49	11,297 49	—	11,297 49	34,924 77	—	—	200 20
Hull, . . .	—	9,306 47	596 77	9,903 24	—	9,903 24	17,997 02	—	—	221 67
Kingston, . . .	—	500 00	165 08	665 08	—	665 08	9,702 14	—	—	209 02
Lakeville, . . .	—	184 15	57 01	241 16	—	241 16	2,826 52	—	—	392 60
Marion, . . .	—	—	430 40	430 40	—	430 40	7,968 50	—	—	—
Marshfield, . . .	—	987 66	489 32	1,476 98	—	1,476 98	7,968 50	—	—	—
Mattapoisett, . . .	—	—	452 41	452 41	—	452 41	5,141 45	9,832 00	348 78	—
Middleborough, . . .	2,500 00	13 89	982 71	3,496 60	—	3,496 60	29,775 01	—	—	1,022 07
Norwell, . . .	—	262 78	190 05	452 83	—	452 83	7,116 64	—	—	305 81
Pembroke, . . .	—	—	237 04	237 04	—	237 04	3,376 78	—	—	107 40
Plymouth, . . .	4,637 78	1,300 40	2,810 83	8,749 01	—	8,749 01	45,161 90	365 00	18 25	—
Plymouth, . . .	—	—	21 49	21 49	—	21 49	1,510 94	—	—	106 94
Rochester, . . .	—	—	183 60	183 60	—	183 60	2,506 01	6,600 00	388 82	260 74
Rockland, . . .	986 16	415 33	1,190 33	2,591 82	—	2,591 82	26,429 32	—	—	—
Scituate, . . .	—	2,950 24	560 20	3,510 44	—	3,510 44	15,870 49	—	—	328 80
Wareham, . . .	—	—	237 82	237 82	—	237 82	12,807 84	—	—	288 70

West Bridgewater, .	-	188 97	130 81	319 78	-	319 78	6,222 57	-	-
Whitman, .	-	27 90	688 40	716 30	-	716 30	24,872 95	-	-
Totals, .	\$56,382 73	\$41,696 06	\$12,857 94	\$110,936 73	-	\$110,936 73	\$573,274 42	\$31,097 00	\$1,501 84
									\$8,252 88

SUFFOLK COUNTY — CONTINUED.

Boston, .	\$1,440,655 31	\$364,133 00	-	\$1,804,788 31	-	\$1,804,788 31	\$4,903,326 58	\$126,875 00	\$5,327 77	\$48,840 84
Chelsea, .	-	19,967 56	-	19,967 56	-	19,967 56	155,912 90	-	-	-
Revere, .	12,775 66	10,576 44	\$1,124 04	24,476 14	-	24,476 14	83,674 23	-	-	1,150 40
Winthrop, .	-	600 00	2,267 51	2,867 51	-	2,867 51	35,129 57	-	-	523 20
Totals, .	\$1,453,430 97	\$395,277 00	\$3,391 55	\$1,852,099 52	-	\$1,852,099 52	\$5,184,043 28	\$126,875 00	\$5,327 77	\$50,514 44

PLYMOUTH COUNTY — CONCLUDED.

[illegible]

West Bridgewater, .	.	779 86	-	1*	50	-	-	6,000 00	-	153,140 39	6,235 69
Whitman, .	.	-	-	-	-	-	-	-	-	-	-
Totals, .	.	\$12,092 69	\$128 50	3	108	6	969	\$6,550 00	\$4,698 50	\$479,040 39	\$20,718 44

SUFFOLK COUNTY — CONCLUDED.

Boston, .	.	-	-	4	450	98	23,763	\$18,606 00	\$404,328 30	\$2,651,929 42	\$110,813 02
Chelsea, .	.	-	-	-	-	1	1,016	-	-	-	-
Revere, .	.	-	-	-	-	-	-	-	-	-	-
Winthrop, .	.	-	-	-	-	-	-	-	-	-	-
Totals, .	.	-	-	4	450	99	24,779	\$18,606 00	\$404,328 30	\$2,651,929 42	\$110,813 02

* United with high school.

WORCESTER COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1903.			SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.										
	Population — U. S. Census of 1900.	Valuation — May 1, 1903.	No. of public schools.	No. of persons in towns between 5 age.		No. of persons in towns between 7 age.		No. of different pu- pls within the school year.	No. of different pu- pls within the year under 5 years of age.	No. of different pu- pls within the year over 15 years of age.	No. of different pu- pls within the year between 7 and 14 years of age.	Average member- ship of all the schools.	Average attendance of all the schools.	Percentage of at- tendance based on average member- ship.
Ashburnham, .	1,882	\$969,365	13	369	255	423	69	253	363	357	93			
Athol, .	7,061	4,338,055	24	1,199	845	1,203	119	856	1,061	986	93			
Auburn, .	1,621	825,325	9	343	257	304	4	221	277	223	81			
Barre, .	2,059	1,499,710	14	387	286	393	56	262	303	279	92			
Berlin, .	1,003	541,145	4	165	117	152	1	111	133	120	90			
Blackstone, .	5,721	2,548,400	25	1,160	916	1,081	49	879	986	893	91			
Bolton, .	770	489,842	4	92	76	121	15	78	106	94	89			
Boylston, .	1,364	439,055	5	127	94	155	5	98	127	115	91			
Brookfield, .	3,062	1,305,197	17	504	342	518	57	335	454	411	90			
Charlton, .	1,860	1,320,790	14	402	289	442	3	304	345	299	87			
Clinton, .	13,667	8,029,442	46	2,563	1,769	2,268	164	1,484	2,039	1,887	93			
Dana, .	790	335,319	4	130	89	125	2	93	108	97	90			
Douglas, .	2,113	1,091,548	10	307	239	353	30	250	286	256	90			
Dudley, .	3,553	1,409,205	15	705	571	437	22	266	350	316	90			
Fitchburg, .	31,531	24,444,840	120	6,297	4,995	4,324	384	2,858	3,892	3,637	93			
Gardner, .	10,813	6,360,610	50	2,038	1,430	2,229	206	1,382	1,987	1,838	93			
Grafton, .	4,869	2,398,440	23	933	656	899	59	678	812	748	92			
Hardwick, .	3,203	1,601,915	15	544	394	357	25	270	352	333	95			
Harvard, .	1,139	1,027,886	6	153	110	165	9	123	147	136	93			
Holden, .	2,464	1,388,764	16	520	417	590	3	430	442	387	87			
Hopedale, .	2,087	4,552,588	11	276	192	352	38	215	294	273	93			
Hubbardston, .	1,227	633,620	9	212	153	228	22	152	191	172	90			
Lancaster, .	2,478	3,347,391	12	402	277	381	15	313	341	311	91			
Leicester, .	3,416	2,376,471	17	592	462	694	38	458	592	537	91			
Leominster, .	12,392	8,915,450	46	2,333	1,682	2,049	241	1,382	1,850	1,721	93			
Lunenburg, .	1,332	954,264	8	224	156	233	21	143	195	174	89			
London, .	911	607,405	6	142	103	169	13	121	146	131	90			

Milford,	11,376	38	1,880	1,300	1,784	1	194	1,197	1,575	1,487	.94
Millbury,	4,460	19	888	602	836	7	63	568	718	657	.91
New Braintree,	500	4	80	57	82	2	2	61	62	55	.88
Northborough,	2,164	9	363	263	380	5	38	254	344	307	.89
Northbridge,	7,036	33	1,366	994	1,473	2	92	1,002	1,267	1,199	.95
North Brookfield,	4,587	14	535	344	542	-	72	322	424	388	.91
Oakham,	588	5	72	62	94	3	10	62	78	72	.92
Oxford,	2,677	15	541	443	593	15	41	396	482	415	.86
Paxton,	459	3	76	59	82	4	8	64	64	56	.87
Petersham,	853	5	113	92	122	2	8	83	103	93	.90
Phillipston,	441	3	60	51	64	3	1	44	53	45	.86
Princeton,	975	9	154	108	162	1	14	110	136	123	.90
Royalston,	958	7	139	116	169	2	8	124	135	119	.88
Rutland,	1,334	7	254	163	289	-	10	200	231	200	.87
Shrewsbury,	1,626	10	260	190	298	3	28	200	273	239	.88
Southborough,	1,921	8	312	218	335	7	36	213	296	255	.86
Southbridge,	10,025	31	2,234	1,522	1,192	20	92	718	1,023	956	.93
Spencer,	7,627	35	1,391	1,008	1,191	29	140	757	1,051	935	.89
Sterling,	1,420	8	194	137	240	2	16	147	196	178	.91
Sturbridge,	2,058	12	367	295	408	5	8	276	330	301	.91
Sutton,	3,328	17	585	484	677	4	9	487	515	440	.85
Templeton,	3,489	17	668	484	637	9	38	431	539	481	.89
Upton,	1,937	8	313	220	333	3	34	223	305	281	.92
Uxbridge,	3,599	21	734	524	796	3	54	546	687	620	.90
Warren,	4,417	21	811	614	917	4	98	645	798	727	.91
Webster,	8,804	20	1,725	1,248	850	24	56	482	644	584	.91
Westborough,	2,314	15	673	481	745	8	60	499	621	563	.91
West Boylston,	2,448	9	215	147	304	12	36	151	239	218	.91
West Brookfield,	2,970,041	7	180	146	209	2	6	178	182	161	.89
Westminster,	1,327	10	243	165	283	2	29	158	230	204	.88
Winchendon,	5,001	23	1,058	742	1,059	2	103	749	916	851	.83
Worcester,	118,421	493	21,302	15,387	22,479	739	2,029	13,704	19,553	17,485	.89
Totals,	346,938	1,479	62,905	45,838	60,270	1,066	5,097	39,066	52,249	47,406	.91

WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.			HIGH SCHOOLS.			
	No. of teachers re- quired by the pub- lic schools.	No. of different male teachers employed during the school year.	No. of different fe- male teachers em- ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended normal schools.	Average wages per	Average wages per	Aggregate of months all the public schools have been kept during the school year.	Average No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principal's salary.
						month of male teachers.	month of female teachers.							
Ashburnham, . . .	13	1	16	5	7	\$158 00	\$36 00	110-17	8-11	1*	12	73	9-12	\$1,500 00
Athol, . . .	29	1	30	10	12	180 00	44 88	236-10	9-17	1	5	134	9-16	1,800 00
Auburn, . . .	9	-	9	3	5	-	38 88	77	8-11	-	-	-	-	-
Barre, . . .	14	1	17	11	13	120 00	38 24	125-19	8-19	1	3	56	9-18	1,200 00
Berlin, . . .	5	-	7	1	2	-	36 15	33-3	8-5	-	-	-	-	-
Blackstone, . . .	32	1	31	-	2	123 00	38 00	226	9	1	3	67	10	1,230 00
Bolton, . . .	4	-	5	2	2	-	42 50	37	9-5	1	1	25	10	500 00
Boylston, . . .	6	-	6	4	5	-	38 67	45	9	-	-	-	-	-
Brookfield, . . .	19	2	18	6	6	80 00	37 29	164	9-1	1	2	41	10	1,040 00
Charlton, . . .	15	-	23	6	8	-	33 05	112	8	1	-	-	-	-
Clinton, . . .	52	3	50	11	15	130 00	47 00	401-18	9-6	1	6	201	9-8	1,600 00
Dana, . . .	4	1	7	1	3	-	40 00	36	9	-	-	-	-	-
Douglas, . . .	10	1	9	4	5	90 00	38 25	89-3	8-18	1	1	21	9-16	900 00
Dudley, . . .	19	4	18	9	11	77 89	36 05	133-15	8-18	1†	3	48	9-1	1,500 00
Fitchburg, . . .	118	16	106	66	85	133 50	54 50	1,040	9-10	1	21	490	10	2,500 00
Gardner, . . .	53	3	54	27	29	126 66	45 74	439-9	8-15	1	12	294	9-8	1,800 00
Grafton, . . .	25	1	33	12	13	131 58	50 19	187-10	8-10	1	3	88	9-3	1,250 00
Grafton, . . .	15	1	18	11	13	80 00	38 40	137	9-1	1	2	31	10	800 00
Hardwick, . . .	7	-	10	7	8	-	39 76	53-8	8-18	1	3	30	9	1,000 00
Harvard, . . .	16	1	25	7	11	102 56	37 90	143-4	8-19	1	2	52	9-15	1,000 00
Hopedale, . . .	13	2	13	7	7	114 00	58 96	101	9-3	1	2	19	10	1,150 00
Hubbardston, . . .	9	1	8	3	4	69 00	35 00	76-10	8-10	1	1	19	9-10	585 00
Lancaster, . . .	15	1	14	6	7	65 00	50 92	110 3	9-3	1	3	47	9-10	1,200 00
Leicester, . . .	20	3	17	5	12	82 00	43 82	147-13	8-14	1	3	55	9-15	1,500 00
Leominster, . . .	58	5	55	23	29	100 00	49 86	425-10	9-5	1	10	259	9-9	1,500 00
Lunenburg, . . .	9	1	11	4	5	78 00	36 25	69-5	8-13	1	2	52	10	780 00
Mendon, . . .	7	2	6	2	3	70 00	40 00	53-14	8-19	1	1	21	9-14	700 00

SCHOOL RETURNS.

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	43	44	16	23	122 34	49 80	324-7	8-10	1	6	149	9-8	1,600 00
Milford, . .	23	24	19	20	103 16	39 65	172	9-1	1	3	97	10	1,400 00
Millbury, . .	4	7	3	3	-	36 00	34	8-10	-	-	-	-	-
New Braintree,	12	12	5	7	105 28	39 47	79-3	8-15	1	2	41	9-8	1,000 00
Northborough,	38	41	23	23	150 00	45 88	314	9-10	1	4	81	10	1,500 00
Northbridge,	14	17	5	5	100 00	41 67	129-10	9-5	1	3	73	10	1,000 00
North Brookfield,	5	6	5	1	-	39 70	40	8	1	-	-	-	-
Oakham, . .	17	17	11	12	80 00	34 21	123-3	8-4	1	2	64	9-15	1,000 00
Oxford, . .	3	5	2	2	-	41 33	26-5	8-15	-	-	-	-	-
Paxton, . .	5	7	4	5	-	39 20	47-4	9-8	-	-	-	-	-
Petersham,	3	5	2	2	-	38 00	27-13	9-4	-	-	-	-	-
Phillipston,	9	14	4	6	-	37 07	74	8-4	1	2	14	9	600 00
Princeton,	7	11	7	8	-	35 75	53-7	8-6	-	-	-	-	-
Royalston,	11	10	1	1	32 00	38 00	57-4	8-3	1	2	40	8-14	574 00
Rutland, . .	11	8	2	4	60 00	38 00	86-11	8-13	1	2	43	9-1	760 00
Shrewsbury,	11	15	8	10	105 26	43 80	70-6	8-15	1	3	59	9-1	1,000 00
Southborough,	38	40	6	13	90 00	41 60	303-16	9-16	1	4	86	9-16	1,100 00
Southbridge,	35	37	6	17	94 20	44 95	324-16	9-6	1	5	121	9-13	1,320 00
Spencer, . .	10	10	8	8	73 68	33 22	69	8-12	1	2	42	9-10	700 00
Sterling, . .	12	15	-	-	44 00	33 52	108	9	-	-	-	-	-
Sturbridge,	17	22	5	9	34 00	33 92	134	9-1	1	1	21	10	600 00
Sutton, . .	18	20	2	3	70 00	35 26	145-2	8-11	1	2	45	9-17	700 00
Templeton,	11	12	5	6	94 59	38 07	68-1	8-10	1	3	59	9-1	875 00
Upton, . .	23	23	4	6	100 00	40 72	183-1	8-14	1	2	57	8-18	1,000 00
Warren, . .	27	26	15	15	63 67	38 42	178-10	8-19	1	4	98	9-19	1,300 00
Webster, . .	25	24	12	15	81 66	43 21	190	9-10	1	3	82	9-9	1,200 00
Westborough,	20	25	9	12	100 00	48 94	121-8	8-2	1	4	63	8-17	1,000 00
West Boylston,	10	11	3	7	110 00	43 33	75-15	8-8	1	2	35	9-6	1,100 00
West Brookfield,	7	7	1	3	-	33 28	53-10	8-7	-	-	-	-	-
Westminster, .	11	18	6	6	-	33 45	80	8	1	1	32	9	540 00
Winchendon, .	28	32	8	10	130 00	44 31	203-10	8-17	1	6	124	10	2,000 00
Worcester, . .	578	580	421	450	145 45	58 58	4,930	10	3	72	2,040	10	3,000 00
Totals, . .	1,678	1,761	878	1,034	\$119 87	\$48 20	13,659-13	9-4	48	241	5,679	9-12	\$59,904 00

† Nichols Academy.

* In Cushing Academy.

WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such schools, less the support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Ashburnham,	\$4,982 50	\$132 50	\$517 82	\$57 00	\$100 00	\$448 31	\$123 73	\$6,361 86	\$460 02	\$5,901 84
Athol,	16,035 86	1,060 70	3,516 20	30 00	1,899 96	1,937 10	798 13	25,277 95	1,531 90	23,746 05
Auburn,	4,013 00	58 60	493 02	138 00	540 00	331 05	50 72	5,624 39	2,020 47	3,603 92
Barre,	6,270 50	864 35	1,354 16	46 11	525 69	573 85	41 27	9,675 93	624 95	9,050 98
Berlin,	2,536 72	222 40	251 00	70 00	214 80	216 50	23 39	3,534 81	1,613 01	1,921 80
Blackstone,	12,938 00	266 00	1,110 00	26 25	890 00	609 12	115 32	15,954 69	131 25	15,823 44
Bolton,	1,752 08	1,484 75	298 80	43 00	321 43	287 88	32 00	4,219 94	1,987 47	2,232 47
Boylston,	2,128 50	507 50	482 51	75 00	267 85	146 75	39 49	3,647 60	1,385 36	2,262 24
Brookfield,	7,504 00	131 30	1,467 10	160 00	750 00	887 44	116 64	11,016 48	1,302 94	9,713 54
Brookline,	4,399 70	10 00	390 11	159 10	750 00	519 52	50 96	6,279 39	1,319 85	4,959 54
Charlton,	27,554 79	-	7,910 37	1,450 00	1,800 00	2,331 56	2,878 52	43,925 24	-	43,925 24
Dana,	1,592 00	190 95	112 15	33 00	285 62	223 69	10 00	2,447 41	1,499 47	947 94
Douglas,	3,548 00	630 50	1,246 62	66 50	600 00	329 66	162 99	6,584 27	1,189 88	5,394 39
Dudley,	6,642 10	121 50	793 73	75 00	537 50	773 85	115 87	9,059 55	1,015 40	8,044 15
Fitchburg,	85,850 29	1,262 50	16,125 52	1,532 50	2,700 00	7,667 80	6,375 81	121,514 42	600 00	120,914 42
Gardner,	28,252 85	770 00	7,274 90	-	2,100 00	2,064 00	2,034 17	42,495 92	-	42,495 92
Grafton,	11,544 87	2,759 25	3,813 22	249 18	1,156 25	1,232 64	206 07	20,961 48	1,642 36	19,319 12
Hardwick,	6,594 70	2,025 51	924 62	4 00	617 64	744 08	20 00	10,930 55	1,371 56	9,558 99
Harvard,	2,783 30	930 54	332 20	30 00	531 98	238 15	113 26	4,959 43	1,126 75	3,832 68
Holden,	7,094 71	219 00	1,757 21	90 00	779 12	542 70	143 75	10,626 49	1,624 86	9,001 63
Hopedale,	8,704 00	670 00	2,743 40	-	546 65	649 16	488 06	13,801 27	-	13,801 27
Hubbardston,	3,136 43	415 40	365 65	80 45	300 00	255 77	74 25	4,627 96	814 26	3,813 69
Hubbardston,	7,318 00	881 65	948 91	100 00	1,000 00	615 70	219 01	11,083 27	-	11,083 27
Leicester,	9,916 00	1,381 50	-	115 47	750 00	830 38	291 90	13,285 25	733 31	12,551 94
Leominster,	29,641 40	2,101 00	9,068 67	393 00	2,000 00	4,186 18	3,055 59	50,445 84	570 00	49,875 84
Lunenburg,	3,286 80	113 30	645 25	126 00	533 28	299 34	36 75	5,040 72	1,176 93	3,863 79
Mendon,	2,396 00	240 00	290 66	12 50	558 33	100 71	101 28	3,699 48	1,376 52	2,322 96

Milford, .	22,110 09	202 50	4,785 41	50 00	1,700 00	1,520 62	2,346 79	32,715 41	417 50	32,297 91
Millbury, .	10,161 12	118 50	2,243 27	169 00	720 00	1,331 56	380 96	15,154 41	1,289 21	13,865 20
New Britain, .	1,511 00	349 00	191 55	16 00	450 00	175 00	64 07	2,756 62	1,692 89	1,063 73
Northborough, .	5,351 39	1,225 85	1,167 60	96 00	428 40	660 21	111 70	9,041 15	1,613 06	7,428 09
Northbridge, .	18,136 30	305 85	4,379 17	32 00	750 00	1,538 91	709 39	25,911 65	38 00	25,873 65
North Brookfield, .	6,839 00	1,033 50	1,035 16	60 00	750 00	706 34	85 85	10,509 85	1,492 39	9,017 46
Oakham, .	1,652 00	99 00	139 99	63 00	311 62	138 99	100 00	2,504 60	1,103 39	1,395 21
Oxford, .	6,371 00	-	1,387 88	-	529 58	802 43	693 61	9,714 50	1,092 36	8,622 14
Faxton, .	1,289 80	510 50	404 65	50 00	141 65	69 28	31 30	2,497 18	1,237 18	1,260 00
Petersham, .	2,268 88	380 44	286 91	47 00	308 88	173 23	53 48	4,018 82	769 69	3,249 13
Phillipston, .	1,255 82	379 30	91 48	48 00	150 00	82 32	10 00	2,026 92	1,207 22	819 70
Princeton, .	2,863 54	423 00	505 10	90 00	300 00	247 42	27 61	4,456 70	1,315 91	3,140 79
Royalston, .	2,118 00	291 25	179 60	85 00	300 00	310 74	-	3,284 59	692 50	2,592 09
Rutland, .	2,624 50	1,407 85	857 37	44 75	311 62	212 86	125 00	5,583 95	1,132 89	4,451 06
Shrewsbury, .	4,249 00	467 20	683 94	167 00	428 40	338 50	388 58	6,722 62	1,158 66	5,563 96
Southborough, .	5,376 79	1,418 78	1,628 00	151 50	428 40	724 51	668 77	10,424 75	1,184 28	9,240 47
Southbridge, .	17,251 90	143 75	4,391 01	147 75	900 00	1,487 92	1,280 97	25,003 28	825 00	24,178 28
Spencer, .	16,081 00	631 82	4,513 60	50 00	1,500 00	1,274 90	654 98	24,706 32	512 77	24,193 55
Sterling, .	3,541 55	653 70	416 38	100 97	650 00	306 85	24 14	6,693 59	1,539 63	4,153 96
Sturbridge, .	4,857 40	1,053 00	671 10	45 90	618 35	377 96	99 49	7,723 20	1,526 85	6,196 35
Sutton, .	5,502 65	449 50	1,161 20	190 01	955 00	796 42	50 00	9,054 78	2,300 08	6,754 70
Templeton, .	6,203 50	949 00	1,308 73	121 88	750 00	714 13	-	10,097 24	1,676 36	8,420 88
Upton, .	4,432 50	700 50	1,085 40	5 50	410 41	474 94	156 95	7,266 20	1,162 39	6,103 81
Uxbridge, .	10,008 69	156 00	3,606 76	15 00	900 00	1,118 24	1,226 72	17,031 41	1,064 76	15,966 65
Warren, .	10,654 25	1,304 12	2,378 51	61 00	1,246 67	1,702 40	21 57	17,371 52	2,507 94	14,863 58
Webster, .	13,075 00	-	2,884 11	200 00	980 00	1,541 11	1,585 81	20,266 03	126 05	20,139 98
Westborough, .	9,357 18	1,536 86	1,850 15	26 60	600 00	603 79	606 53	14,611 11	206 46	14,404 65
West Boylston, .	4,685 00	1,247 50	1,006 97	158 75	800 00	461 05	226 40	8,585 67	3,712 48	4,873 19
West Brookfield, .	3,295 50	839 35	455 50	7 00	460 50	247 05	118 55	5,423 45	1,304 06	4,119 39
Westminster, .	3,257 75	578 25	465 18	67 50	600 00	258 63	130 63	5,357 94	1,378 79	3,979 15
Winchendon, .	15,009 87	531 24	3,681 44	339 03	1,066 84	1,610 39	1,484 13	23,722 94	9,807 34	13,915 60
Worcester, .	433,494 62	795 50	93,251 25	7,288 59	3,946 65	28,259 83	4,845 13	571,881 57	3,581 99	568,299 58
Totals, .	\$663,403 69	\$40,193 31	\$207,328 17	\$15,156 79	\$47,449 07	\$79,311 45	\$85,959 07	\$1,388,801 55	\$77,944 60	\$1,310,856 95

WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.				Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and repairs.	Ordinary repairs.	Total expenditure for school buildings, being the total of the three preceding columns.				Principal.	Income.	
Ashburnham, . . .	-	-	\$345 53	\$345 53	-	\$345 53	\$6,247 37	-	-	-
Athol, . . .	-	-	910 61	910 61	-	910 61	24,656 66	-	-	\$394 24
Auburn, . . .	-	\$124 00	134 46	258 46	-	258 46	3,862 38	-	-	338 88
Barre, . . .	-	2,968 82	299 51	3,268 33	-	3,268 33	12,319 31	\$1,500 00	\$54 60	86 40
Berlin, . . .	-	-	356 26	356 26	-	356 26	2,278 06	-	-	-
Blackstone, . . .	\$2,507 30	-	939 85	3,447 15	-	3,447 15	19,270 59	-	-	-
Bolton, . . .	-	-	-	-	-	-	2,232 47	12,000 00	588 69	-
Boylston, . . .	15,247 79	-	9 42	15,257 21	\$4,750 00	10,507 21	12,769 45	-	-	-
Brookfield, . . .	-	245 95	319 11	565 06	-	565 06	10,278 60	-	-	428 35
Brookline, . . .	-	-	140 77	140 77	-	140 77	5,100 31	1,000 00	40 00	497 69
Charlton, . . .	25,442 72	1,416 82	1,574 01	28,433 55	-	28,433 55	72,358 79	-	-	150 98
Clinton, . . .	-	-	27 12	27 12	-	27 12	975 06	-	-	-
Dana, . . .	-	-	87 34	87 34	-	87 34	5,481 73	941 33	56 48	-
Douglas, . . .	-	-	85 20	85 20	-	85 20	8,129 35	-	-	361 24
Dudley, . . .	16,547 71	5,000 00	3,416 88	24,964 59	-	24,964 59	145,879 01	-	-	-
Fitchburg, . . .	24,078 74	-	2,500 08	26,578 82	-	26,578 82	69,074 74	-	-	-
Gardner, . . .	-	-	973 77	973 77	-	973 77	20,292 89	-	-	-
Grafton, . . .	-	-	771 27	8,921 31	-	8,921 31	18,480 30	200 00	12 00	1,848 08
Hardwick, . . .	8,150 04	-	41 23	8,191 27	-	8,191 27	3,873 91	-	-	510 87
Harvard, . . .	-	-	381 19	381 19	-	381 19	9,382 82	3,666 66	202 00	-
Holden, . . .	-	-	604 44	737 12	-	737 12	14,538 39	1,200 00	72 00	-
Hopedale, . . .	-	132 68	737 12	870 80	-	870 80	4,086 06	-	-	-
Hubbardston, . . .	-	-	272 37	272 37	-	272 37	4,086 06	-	-	-
Launceston, . . .	-	324 84	91 17	416 01	-	416 01	11,499 28	-	-	479 79
Leicester, . . .	20,815 39	448 31	291 93	21,555 63	-	21,555 63	34,107 57	-	-	-
Leominster, . . .	-	1,270 90	1,101 17	2,372 07	-	2,372 07	52,247 91	13,000 00	570 00	-
Lunenburg, . . .	-	-	86 56	86 56	-	86 56	3,950 35	-	-	-
Mendon, . . .	12,786 24	277 55	85 69	13,149 48	-	13,149 48	15,472 44	-	-	172 79

SCHOOL RETURNS.

LXXXV

Milford,	24,000 00	1,721 31	25,721 31	-	25,721 31	58,019 22	-	-	-
Millbury,	-	449 94	449 94	-	449 94	14,315 14	-	-	-
New Braintree,	-	27 62	27 62	-	27 62	1,091 35	-	-	-
Northborough,	-	321 91	321 91	-	321 91	7,750 00	5,400 00	270 00	-
Northbridge,	1,085 11	1,613 70	2,698 81	-	2,698 81	28,572 46	-	-	776 18
North Brookfield,	-	107 50	107 50	-	107 50	9,124 96	-	-	413 25
Oakham,	-	90 71	90 71	-	90 71	1,485 92	-	-	142 04
Oxford,	4,980 00	156 50	5,136 50	-	5,136 50	13,758 64	-	-	-
Paxton,	-	-	-	-	-	1,200 00	-	-	57 37
Petersham,	-	89 39	89 39	-	89 39	3,338 52	781 68	27 58	177 44
Phillipston,	-	246 98	246 98	-	246 98	1,066 68	-	-	86 68
Princeton,	-	91 58	91 58	-	91 58	3,232 37	-	-	215 99
Royalston,	173 28	188 72	362 00	-	362 00	2,951 09	6,500 00	228 00	135 89
Rutland,	-	50 43	50 43	-	50 43	4,501 49	-	-	25 03
Shrewsbury,	1,432 86	1,703 82	1,703 82	-	1,703 82	7,267 78	1,000 00	40 20	379 44
Southborough,	4,000 00	270 96	4,000 00	-	4,000 00	13,240 47	-	-	122 47
Southbridge,	-	785 75	785 75	-	785 75	25,564 03	-	-	-
Spencer,	500 00	2,063 94	2,563 94	2 62	2,561 32	26,754 87	-	-	545 22
Sterling,	162 06	85 19	247 25	-	247 25	4,401 21	15,043 17	601 68	149 90
Sturbridge,	494 43	96 38	1,982 20	-	1,982 20	8,178 55	-	-	-
Sutton,	2,605 41	480 60	3,086 01	2,605 41	480 60	7,235 30	-	113 00	423 87
Templeton,	-	457 87	457 87	-	457 87	8,878 75	-	-	350 06
Upton,	-	228 89	228 89	-	228 89	6,332 70	-	-	341 11
Uxbridge,	-	785 33	785 33	-	785 33	16,751 98	-	-	-
Warren,	-	1,210 97	1,210 97	-	1,210 97	16,074 55	-	-	-
Webster,	292 50	147 48	439 98	-	439 98	20,579 96	-	-	543 18
Westborough,	254 65	443 36	698 01	-	698 01	15,102 66	-	-	-
West Boylston,	183 81	20 85	12,924 00	-	12,924 00	17,797 19	-	-	4,450 00
West Brookfield,	-	185 16	185 16	-	185 16	4,304 55	-	-	-
Westminster,	75 00	413 61	488 61	-	488 61	4,467 76	-	-	-
Winchendon,	-	1,412 53	1,412 53	563 20	849 33	14,674 93	275,000 00	8,306 00	-
Worcester,	4,128 12	21,879 39	57,870 18	384 87	57,485 31	625,784 89	2,000 00	93 88	-
Totals,	\$204,529 33	\$51,971 49	\$280,097 92	\$8,306 10	\$271,791 82	\$1,682,648 77	\$339,232 84	\$11,276 11	\$14,604 43

WORCESTER COUNTY — CONCLUDED.

[illegible]

SCHOOL RETURNS.

lxxxvii

[illegible]

* United with high school.

RECAPITULATION.

COUNTIES.	SCHOOL CENSUS DATA SEPT. 1, 1903.		No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	SCHOOL MEMBERSHIP AND ATTENDANCE DATA FOR THE SCHOOL YEAR.							
	Population — U. S. Census of 1900.	Valuation — May 1, 1903.			No. of public schools.	No. of different pu- pils within the year.	No. of different pu- pils within 5 years of age.	No. of different pu- pils within 15 years of age.	No. of different pu- pils within the year between 7 and 14 years of age.	Average member- ship of all the schools.	Average attendance of all the schools.	Percentage of at- tendance based on average member- ship.
Barnstable,	27,826	\$25,838,565	153	4,153	2,980	4,833	20	541	3,158	4,340	3,927	.90
Berkshire,	95,667	65,220,705	484	18,431	13,431	16,810	417	1,409	11,396	14,426	13,100	.91
Bristol,	252,029	197,746,749	930	49,870	35,058	40,246	673	2,328	27,906	34,541	31,217	.90
Dukes,	4,561	4,504,089	26	617	437	693	2	110	450	603	548	.91
Essex,	357,030	296,650,488	1,366	61,810	43,824	57,850	885	5,413	36,409	50,366	46,322	.92
Franklin,	41,209	24,436,147	272	7,371	5,326	7,577	111	661	5,080	6,740	6,186	.92
Hampden,	175,603	156,559,530	767	33,917	25,083	31,626	1,452	2,587	20,285	26,364	23,809	.90
Hampshire,	58,820	35,282,382	318	10,337	7,432	10,524	245	906	7,098	9,317	8,548	.92
Middlesex,	565,696	556,239,522	2,308	100,333	72,823	102,685	2,833	10,621	64,793	91,396	83,900	.92
Nantucket,	3,006	3,422,245	11	422	293	442	4	56	288	398	362	.91
Norfolk,	151,539	222,613,394	738	28,123	20,435	30,106	841	2,686	18,857	26,268	24,049	.92
Plymouth,	113,985	89,346,443	537	19,047	13,522	21,380	104	2,075	14,195	18,863	17,022	.90
Suffolk,	611,417	1,265,035,572	2,092	108,773	75,030	109,000	2,508	9,683	61,764	95,490	85,375	.89
Worcester,	346,958	257,205,651	1,479	62,905	45,838	60,270	1,066	5,097	39,066	52,249	47,406	.91
Totals,	2,805,346	\$3,200,101,482	11,481	506,109	361,512	494,042	11,161	44,173	310,745	431,361	391,771	.91

RECAPITULATION — CONTINUED.

COUNTIES.	TEACHERS AND TEACHERS' WAGES.								LENGTH OF SCHOOLING.			HIGH SCHOOLS.			
	No. of teachers re-quired by the pub-lic schools.	No. of different male teachers employed during the school year.	No. of different fe-male teachers em-ployed during the school year.	No. of teachers that have graduated from normal schools.	No. of teachers that have attended nor-mal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avg'e No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Principals' salaries.	
Barnstable,	167	36	159	68	93	\$71 72	\$39 98	1,357-12	8-17	14	27	596	9-8	\$12,345 00	
Berkshire,	567	51	602	201	260	90 92	41 84	4,488-3	9-5	11	51	1,220	9-12	14,508 00	
Bristol,	1,073	73	1,097	422	511	125 52	54 74	8,721-5	9-7	13	81	2,271	9-13	18,021 16	
Dukes,	28	4	27	14	17	69 72	39 40	218-4	8-7	3	6	75	8-13	2,150 00	
Essex,	1,596	121	1,578	511	615	133 60	51 70	13,015-19	9-10	28	211	5,230	9-13	44,538 00	
Franklin,	285	12	330	110	156	88 01	38 55	2,375-16	8-14	11	37	813	9-9	10,600 00	
Hampden,	905	70	937	451	516	140 81	53 62	7,254	9-9	11	105	2,279	9-16	20,400 00	
Hampshire,	354	21	394	133	170	91 33	45 97	2,865-2	9	11	38	1,052	9-13	11,456 66	
Middlesex,	2,812	246	2,749	1,174	1,406	148 34	59 02	21,188-19	9-4	49	419	10,770	9-9	81,133 14	
Nantucket,	14	1	13	2	2	100 00	35 00	108	9-16	1	4	70	10	1,000 00	
Norfolk,	877	89	889	348	470	126 32	54 21	6,742-10	9-3	27	135	3,362	9-1	36,661 00	
Plymouth,	616	72	632	275	347	99 78	49 02	4,853-9	9	21	95	2,227	9-9	24,920 00	
Suffolk,	2,504	289	2,326	1,710	1,795	212 18	71 03	19,651-6	9-7	16	288	7,931	9-5	55,260 00	
Worcester,	1,678	162	1,761	878	1,034	119 87	48 20	13,659-13	9-4	48	241	5,679	9-12	59,994 00	
Totals,	13,476	1,247	13,494	6,297	7,392	\$145 48	\$55 37	106,499-18	9-5	264	1,738	43,575	9-9	\$392,956 96	

RECAPITULATION — CONTINUED.

COUNTIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.						Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions from other local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.	
Barnstable,	\$73,781 34	\$10,525 30	\$15,445 45	\$1,518 92	\$9,066 01	\$7,315 68	\$1,998 15	\$119,050 85
Berkshire,	253,465 12	7,788 15	58,481 47	6,173 33	21,530 43	24,310 73	8,278 76	380,027 99
Bristol,	640,326 52	9,918 01	151,880 92	13,469 62	21,880 20	46,961 19	35,779 11	920,215 57
Dukes,	10,878 37	1,265 57	2,027 84	365 09	1,599 76	1,104 70	710 70	17,952 03
Essex,	929,746 93	11,885 44	200,406 16	15,586 66	34,451 99	79,861 57	31,457 57	1,303,396 32
Franklin,	112,118 67	14,707 09	18,176 82	1,261 73	13,553 71	13,123 07	5,097 61	178,018 70
Hampden,	562,886 40	10,192 82	131,206 22	11,174 26	23,893 57	56,528 27	21,834 07	817,715 61
Hampshire,	154,382 43	6,892 68	34,884 42	2,409 57	13,524 80	14,630 89	5,600 89	232,325 68
Middlesex,	1,917,312 30	42,579 21	419,733 00	27,431 77	63,599 59	143,567 40	69,617 98	2,683,841 25
Nantucket,	5,455 75	—	687 49	125 00	—	840 06	415 00	7,523 39
Norfolk,	544,354 67	20,698 45	123,068 29	6,747 71	32,131 01	59,198 11	26,339 64	812,537 88
Plymouth,	338,056 66	16,750 49	70,885 40	3,532 65	21,111 58	30,174 51	15,552 47	496,063 76
Suffolk,	2,691,739 55	1,570 83	460,393 82	55,947 97	34,980 00	90,701 44	89,831 94	13,425,165 05
Worcester,	963,403 69	40,193 31	207,328 17	16,156 79	47,449 07	79,311 45	35,959 07	1,388,801 55
Totals,	\$9,197,908 40	\$194,967 35	\$1,894,604 97	\$160,901 07	\$338,751 72	\$617,629 07	\$348,473 05	\$12,783,235 63
							\$540,638 93	\$12,242,596 70

RECAPITULATION — CONTINUED.

COUNTIES.	EXPENDITURES FOR SCHOOL BUILDINGS.				Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income to the public schools.
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.						Principal.	Income.	
Barnstable,	\$10,584 67	\$2,005 74	\$6,192 00		\$18,782 41	\$7,168 99	\$11,613 42	\$111,320 01	\$36,233 00	\$1,904 47	\$1,673 59
Berkshire,	3,251 53	15,870 25	11,136 58		30,258 36	—	30,258 36	371,390 13	3,330 00	177 90	2,587 00
Bristol,	67,051 58	13,894 62	54,875 07		135,781 27	—	135,781 27	1,016,841 89	218,976 00	14,105 09	10,140 51
Dukes,	—	598 15	286 15		884 43	—	884 43	13,396 51	—	—	327 42
Essex,	139,275 14	30,193 28	75,023 13		244,491 55	458 55	244,033 00	1,550,934 67	199,212 49	9,839 28	8,692 59
Franklin,	38,535 34	6,623 54	6,608 80		51,767 68	710 72	51,056 96	189,682 35	24,532 50	970 49	1,433 59
Hampden,	128,603 33	4,136 83	38,834 30		171,574 46	160 80	171,413 66	947,382 43	37,445 13	1,865 20	4,451 43
Hampshire,	11,991 69	1,157 70	9,455 81		22,605 20	—	22,605 20	216,538 09	33,724 83	1,326 70	3,592 79
Middlesex,	352,018 79	44,642 67	97,339 16		494,000 62	24,224 00	469,776 62	3,091,066 99	138,187 14	6,678 38	8,430 29
Nantucket,	—	—	674 45		674 45	—	674 45	8,197 84	—	—	204 50
Norfolk,	176,420 51	30,663 10	32,394 51		239,478 12	200 00	239,278 12	1,027,482 88	33,089 59	1,922 68	5,577 27
Plymouth,	56,382 73	41,696 06	12,857 94		110,936 73	—	110,936 73	573,274 42	31,097 00	1,501 84	8,252 88
Suffolk,	1,453,430 97	395,277 00	3,391 55		1,852,099 52	—	1,852,099 52	5,184,043 28	126,875 00	5,327 77	50,514 44
Worcester,	204,629 33	23,597 10	51,971 49		280,097 92	8,306 10	271,791 82	1,582,648 77	339,232 84	11,276 11	14,604 43
Totals,	\$2,642,075 61	\$610,316 04	\$401,041 07		\$3,653,432 72	\$41,229 16	\$3,612,203 56	\$15,854,800 26	\$1,221,935 62	\$56,895 91	\$120,412 73

RECAPITULATION — CONCLUDED.

COUNTIES.	Town's share of school fund income paid Jan. 25, 1904.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		Principal.	Income.
			No. of different academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.		
Barnstable,	\$9,784 62	\$1,392 65	1	1	11	3,380	—	\$13,885 00	\$10,000 00	—
Berkshire,	21,370 22	7,350 00	3	226	28	9,623	\$19,500 00	5,650 00	246,719 29	\$12,400 00
Bristol,	9,946 94	—	1	—	—	—	—	—	—	—
Dukes,	4,867 47	—	5	697	46	12,296	126,379 50	47,238 72	748,142 51	16,731 12
Essex,	10,046 92	250 00	3	1,175	1	230	66,918 85	—	1,556,478 89	23,046 51
Franklin,	20,564 72	—	1	171	25	7,830	12,791 00	18,828 50	464,198 91	11,672 94
Hampden,	15,071 57	1,015 14	1	347	9	1,262	16,493 75	21,550 00	1,011,408 41	32,970 10
Hampshire,	15,629 72	30 00	3	—	—	—	204,550 00	94,682 00	677,510 00	19,478 36
Middlesex,	20,678 29	3,246 31	12	1,340	59	13,974	—	—	56,761 00	2,500 00
Nantucket,	—	—	—	—	—	—	30,675 00	129,700 00	1,123,000 00	64,300 00
Norfolk,	9,206 97	194 61	3	440	18	2,165	969	4,698 50	479,040 39	20,718 44
Plymouth,	12,092 69	128 50	3	108	6	969	18,606 00	404,328 30	2,651,929 42	110,813 02
Suffolk,	—	—	4	450	99	24,779	48,000 00	41,290 00	1,111,900 00	22,160 00
Worcester,	34,434 26	478 50	4	703	32	6,263	—	—	—	—
Totals,	\$183,694 39	\$14,085 71	41	5,657	334	82,771	\$550,464 10	\$781,851 02	\$10,137,088 82	\$336,790 49

Town's share of school fund income paid Jan. 25, 1904.

Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.

COUNTIES.

EVENING SCHOOLS.

CITIES AND TOWNS.	No. of schools.	ATTENDANCE.			Time. Average No. of evenings.	No. of teachers.	Expense.
		Males.	Females.	Average.			
Adams,	13	572	-	364	18	14	\$493 69
Attleborough,	11	230	113	169	35	15	863 11
Beverly,	7	177	142	153	34	8	1,503 05
Boston,	238	4,123	2,807	5,116	99	255	110,784 01
Brockton,	14	399	165	284	48	20	2,749 22
Brookline,	5	119	70	62	69	7	1,826 09
Cambridge,	41	1,242	609	723	63	57	10,196 27
Chelsea,	9	425	204	218	50	16	1,730 82
Chicopee,	18	192	162	248	40	29	2,111 16
Clinton,	6	221	91	198	94	15	1,300 00
Dudley,	2	73	55	34	40	4	198 12
Easthampton,	15	135	104	196	30	15	883 82
Everett,	4	105	101	56	81	6	1,366 99
Fall River,	66	2,544	1,546	2,557	45	189	14,436 46
Fitchburg,	4	549	206	349	40	41	3,180 00
Framingham,	4	88	40	45	42	7	760 60
Gardner,	26	227	38	164	35	26	852 72
Gloucester,	8	325	125	153	30	10	378 26
Grafton,	4	64	40	93	3	4	300 00
Greenfield,	3	72	39	46	53	5	385 00
Haverhill,	15	447	186	349	60	30	2,276 00
Holyoke,	30	604	464	650	44	54	5,301 12
Hyde Park,	7	151	82	104	90	6	1,162 39
Lawrence,	53	1,242	909	1,324	77	81	10,786 00
Leominster,	18	200	51	117	57	20	1,482 25
Lowell,	93	2,983	1,456	2,294	70	168	25,000 00
Lynn,	16	1,032	390	515	39	43	2,501 50
Malden,	10	314	206	200	49	18	2,825 90
Marlborough,	5	136	13	56	58	6	760 02
Maynard,	3	50	25	40	30	3	105 00
Medford,	6	156	64	65	39	6	700 03
Milford,	9	235	49	195	24	12	650 00
New Bedford,	50	1,872	1,149	1,397	39	90	9,197 45
Newburyport,	3	63	21	52	45	7	358 75
Newton,	3	189	38	64	35	8	975 31
North Adams,	15	245	102	261	40	17	1,800 00
Northampton,	12	99	81	120	46	13	986 50
North Attleborough,	3	56	29	28	35	3	292 00
Northbridge,	3	92	14	76	33	5	286 92
Peabody,	6	155	8	67	56	9	380 00
Pittsfield,	10	277	144	167	43	10	873 52
Quincy,	10	550	56	237	54	12	1,530 22
Salem,	7	447	216	213	47	24	2,670 00
Somerville,	20	680	239	329	79	34	7,188 00
Southbridge,	4	168	101	201	36	13	611 60
Spencer,	2	42	4	28	38	2	143 59
Springfield,	37	1,379	901	1,081	73	86	14,663 08
Taunton,	11	389	114	304	36	24	1,892 50
Waltham,	9	225	166	214	46	13	1,891 00
Watertown,	1	80	-	25	50	2	230 00
Webster,	6	205	139	207	50	10	642 70
Wellfleet,	1	7	10	12	26	1	12 98
Westfield,	4	32	17	49	39	4	247 00
Weymouth,	4	17	18	35	30	5	250 00
Woburn,	5	146	33	53	38	8	543 51
Worcester,	82	1,994	787	1,335	110	102	29,624 04
Totals,	1,071	28,841	14,939	23,692	48	1,692	\$287,140 27

RETURNS OF SCHOOLS IN STATE INSTITUTIONS FOR THE SCHOOL YEAR 1903-1904.

STATE INSTITUTIONS.	No. of schools in the institution.	No. of different scholars of all ages during the year.	Average attendance during the year.	No. under 5 years of age attending school.	No. over 15 years of age attending school.	No. between 5 and 15 years of age remaining in the institution July 31, 1904.	NO. OF TEACHERS DURING THE YEAR.		WAGES OF TEACHERS PER MONTH.		Length of each school in months.
							Males.	Females.	Males.	Females.	
State Industrial School for Girls,	8	334	209	-	89	127	-	11	-	\$29 16* to \$41 67*	10
Lyman School for Boys at Westborough, . .	8	554	319	-	270	284	4	11	\$33 34* to \$91 67*	\$25 00* to \$66 67*	11

* And home.

GRADUATED TABLES.

In order to show the comparative standing of the towns and cities (1) in the taxes which they impose upon themselves for the support of their public schools, (2) in the ratio which these taxes bear to their respective valuations, and (3) in the ratio of the attendance upon the public schools to the whole number of children between five and fifteen, three graduated tables have been prepared.

For the sake of brevity as well as convenience of reference these tables may be named as follows :—

- I. Graduated taxation table.
- II. Graduated valuation table.
- III. Graduated attendance table.

I. Graduated Taxation Table.

In this table the towns and cities are classified or ranked according to the amounts which they severally raise by local taxation for the school support of each child in the average membership of the public schools. It is the average membership that more than any other factor determines the expense of the schools, and it is the expenditure for each child in the average membership that more than any other factor determines a town's liberality in matters of school support. In some places large numbers of children between five and fifteen are in private schools; the amount raised for the public schools is correspondingly reduced. Consequently the amounts of the local tax for each child between five and fifteen in such places are relatively small. To use such amounts, however, as evidence of the economy or the parsimony of towns would be illogical and unjust.

Advantage is taken of this table to present important data not given in reports previous to the sixty-sixth. They are the amounts yielded for each child in the average membership by the local tax *plus* the State and other contributions. In the column next to the last, the amounts measure the local taxation burden for each child in the average membership. That is to say, the former column shows what the town unaided is doing for the child, the latter column what the child gets from all sources.

II. Graduated Valuation Table.

This table exhibits for the several towns and cities the ratios which the sums raised by taxation and expended for the support of the public schools

bear to their respective assessed valuations. For convenience of apprehension the ratio in each case is expressed as so many dollars of tax on a thousand dollars of valuation.

III. *Graduated Attendance Table.*

This table exhibits for the several towns and cities the ratio in each case of the average attendance upon the public schools to the whole number of children between five and fifteen reported in the school census. If there are no private schools, the ratio is likely to be high. If there are no private schools and at the same time an unusually large proportion of the children under five and over fifteen are attending school, the ratio may exceed even a hundred per cent. On the other hand, if children attend private schools in any considerable number, the fact is reflected in a lower ratio.

I. GRADUATED TAXATION TABLE.

Table showing for the several towns and cities of the State the comparative amounts of money expended for the support of public schools per child, as determined (1) by the number of children between five and fifteen years of age in the town or city and (2) by the number of children in the average membership of the public schools.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
			Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.	Amount of local tax for school support for each child between five and fifteen years of age.	Local tax for support.
1902-3.	1903-4.							
2	1	Lincoln,	\$6,615 56	\$7,427 17	132	100	\$50 12	\$66 16
1	2	Weston,	15,956 47	15,956 47	280	251	56 99	63 57
3	3	Brookline,	172,560 14	172,560 14	3,309	3,358	52 15	51 39
4	4	Hull,	8,093 78	8,093 78	197	167	41 09	48 47
5	5	Nahant,	5,727 57	5,727 57	110	120	52 07	47 73
6	6	Milton,	62,782 18	62,782 18	1,247	1,333	50 35	47 09
7	7	Hopedale,	13,801 27	13,801 27	276	294	50 00	46 94
8	8	Wellesley,	32,855 81	33,062 04	679	746	48 42	44 32
10	9	Cohasset,	15,723 63	15,764 03	400	401	39 30	39 31
15	10	Falmouth,	18,333 02	18,908 17	420	478	43 89	38 35
19	11	Westwood,	6,047 51	6,991 52	207	160	29 22	37 80
20	12	Sudbury,	6,162 99	7,681 39	169	167	36 47	36 90
12	13	Newton,	205,962 72	205,962 72	5,878	5,629	35 04	36 59
13	14	Boston,	3,098,538 27	3,190,165 56	98,487	86,266	31 46	35 92
16	15	Belmont,	23,239 40	23,879 18	712	682	32 61	35 10
79	16	Lexington,	26,080 32	26,692 20	707	745	36 89	35 01
14	17	Manchester,	14,250 60	14,250 60	429	412	33 22	34 59
17	18	Springfield,	354,044 41	359,299 47	11,490	10,290	30 81	34 41
9	19	Burlington,	1,715 06	2,674 96	68	51	25 22	33 63
29	20	Lowell,	345,307 62	345,307 62	14,332	10,395	24 09	33 22

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	TOWNS AND CITIES.		AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
	1902-3.	1903-4.	Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
24	Watertown,	21	\$43,915 02	\$43,915 02	1,408	1,325	\$31 19	\$33 14	\$33 14
78	Wenham,	22	3,740 84	4,093 34	155	115	24 13	32 53	35 59
33	Lancaster,	23	11,083 27	11,083 27	402	341	27 57	32 50	32 50
27	Holyoke,	24	188,371 63	188,443 89	10,223	5,818	18 43	32 38	32 39
37	Dedham,	25	46,435 96	47,799 46	1,294	1,436	35 87	32 34	33 29
39	Hyde Park,	26	51,017 23	51,017 23	2,386	1,582	21 84	32 25	32 25
22	Petersham,	27	3,249 13	4,018 82	113	103	28 75	31 54	39 01
23	Webster,	28	20,139 98	20,266 03	1,725	644	11 68	31 43	31 47
57	New Bedford,	29	254,675 13	257,071 27	12,566	8,109	20 27	31 41	31 70
31	Southborough,	30	9,240 47	10,424 75	312	296	29 62	31 21	35 22
178	Ashby,	31	3,607 69	4,576 91	117	116	30 83	31 10	39 46
34	Fitchburg,	32	120,914 42	121,514 42	6,297	3,892	19 20	31 06	31 22
46	Topsfield,	33	3,091 06	4,113 45	111	100	27 85	30 91	41 13
49	Arlington,	34	48,590 41	49,626 83	1,657	1,586	29 32	30 61	31 29
89	Norwell,	35	6,663 81	7,716 82	203	218	32 82	30 56	35 39
36	Longmeadow,	36	4,491 19	5,069 44	167	148	26 89	30 35	34 25
26	Hamilton,	37	6,737 60	7,084 10	255	222	26 42	30 35	31 91
25	Boxford,	38	2,425 31	3,486 09	101	80	24 10	30 32	43 58
39	Waltham,	39	92,094 90	92,094 90	4,023	3,064	22 89	30 06	30 06
41	Swampscott,	40	21,633 14	21,675 39	705	730	30 69	30 05	30 10
50	Bedford,	41	5,063 13	6,216 31	206	169	24 88	29 96	36 78
42	Cambridge,	42	430,729 37	439,750 66	15,512	14,397	27 77	29 92	30 54
40	Barre,	43	9,050 98	9,675 93	387	303	23 39	29 87	31 93
87	Plympton,	44	1,489 45	2,535 53	56	50	26 60	29 79	50 71
74	Winchester,	45	44,715 22	44,789 22	1,485	1,514	30 11	29 53	29 58
65	Marion,	46	3,989 62	4,953 52	134	135	29 77	29 52	36 69
84	Salem,	47	130,094 60	130,094 60	6,203	4,408	20 97	29 51	29 51
62	Hingham,	48	23,627 28	25,530 83	721	801	32 77	29 50	31 87

60	49	Lawrence, . .	215,492 57	215,492 57	11,428	7,311	18 86	29 48
30	50	Canton, . .	16,507 22	16,718 22	805	561	20 51	29 80
44	51	Beverly, . .	69,965 07	69,965 07	2,530	2,385	27 65	29 34
61	52	Scituate, . .	12,360 05	12,944 81	429	424	28 81	29 53
48	53	Mattapoisett, . .	4,689 04	5,668 58	169	161	27 74	29 12
45	54	Worcester, . .	508,299 58	571,881 57	21,302	19,553	26 68	29 06
72	55	Groton, . .	10,400 70	10,474 42	355	358	29 05	29 26
59	56	Stockbridge, . .	10,923 16	11,390 32	385	376	28 37	29 05
53	57	Malden, . .	171,997 04	172,959 79	6,677	5,929	25 76	29 17
64	58	Winthrop, . .	32,262 06	32,412 06	1,177	1,115	27 41	28 93
43	59	Barnstable, . .	19,619 31	23,278 15	612	679	32 06	28 89
47	60	Somerville, . .	304,946 00	304,946 00	11,422	10,569	26 70	34 28
85	61	Sharon, . .	8,352 01	9,634 97	355	290	23 53	33 22
38	62	Nelrose, . .	78,599 55	80,099 55	2,717	2,739	28 70	28 80
75	63	North Adams, . .	87,926 28	87,926 28	4,754	3,066	18 49	28 68
271	64	Sunderland, . .	3,129 63	4,196 94	129	110	24 26	38 15
136	65	Wayland, . .	10,664 36	11,908 34	325	378	32 81	28 21
99	66	Revere, . .	65,198 09	65,267 09	2,432	2,321	26 81	28 09
69	67	Reading, . .	26,696 37	26,696 37	967	956	27 61	27 93
67	68	Concord, . .	28,173 11	34,795 60	868	1,009	32 46	27 92
68	69	Haverhill, . .	138,666 37	139,125 52	6,276	4,980	22 09	27 84
77	70	Cottage City, . .	4,471 63	4,921 41	168	161	26 22	27 77
80	71	Ware, . .	30,390 79	30,715 04	1,544	1,095	19 68	27 75
92	72	Needham, . .	19,946 60	19,946 60	741	719	26 92	27 74
144	73	Norwood, . .	33,459 23	33,557 73	1,373	1,206	24 37	27 74
83	74	Carver, . .	4,655 33	6,078 67	156	168	29 84	27 71
194	75	New Ashford, . .	221 27	551 27	10	8	22 13	27 66
35	76	Littleton, . .	5,793 90	7,483 76	221	210	26 22	27 59
52	77	Medford, . .	101,387 93	101,567 43	3,580	3,678	28 32	27 57
11	78	Dover, . .	2,918 70	4,635 96	128	106	22 80	27 53
110	79	Yarmouth, . .	5,588 13	8,130 85	192	203	29 10	27 53
241	80	West Newbury, . .	6,129 65	7,303 04	221	223	27 73	27 49
58	81	Walpole, . .	18,133 19	19,698 10	671	662	27 02	27 39
54	82	Dalton, . .	13,861 76	14,736 76	508	508	25 11	27 29
66	83	Attleborough, . .	54,402 74	56,459 74	2,163	2,000	25 15	27 20
91	84	Hardwick, . .	9,558 99	10,930 55	544	352	17 57	27 16
150	85	Andover, . .	30,098 23	33,617 01	1,137	1,112	26 47	27 07
108	86	Wrentham, . .	11,187 48	13,185 48	465	414	24 06	27 02
215	87	Deerfield, . .	7,176 94	7,894 84	319	266	22 50	26 98

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1902-3.								
82	Leominster,	\$49,875 84	\$50,445 84	2,333	1,850	\$21 38	\$26 96	\$27 27
88	Dunstable,	1,638 36	2,440 96	65	61	25 21	26 86	40 02
155	Norton,	5,802 73	6,914 07	274	217	21 18	26 74	31 86
143	Lenox,	15,556 50	15,736 50	548	582	28 39	26 73	27 04
55	Chicopee,	61,808 03	61,853 53	3,447	2,345	17 93	26 35	26 38
160	Northampton,	72,419 92	74,693 21	3,172	2,749	22 83	26 32	27 17
104	Westfield,	52,424 80	59,551 98	2,162	1,997	24 25	26 25	29 82
93	Harvard,	3,832 68	4,959 43	153	147	25 05	26 07	33 73
42	Marshfield,	6,491 52	7,469 45	247	250	26 28	25 96	29 88
96	Wilbraham,	6,022 29	7,336 11	250	232	24 08	25 95	31 62
103	Brockton,	176,909 42	177,060 49	7,609	6,864	23 25	25 77	25 79
131	Ashland,	8,120 51	8,120 51	232	266	29 47	25 70	30 53
114	Lynn,	238,340 05	239,039 01	11,305	9,322	21 08	25 57	25 64
100	Montague,	25,217 10	26,102 85	1,408	987	17 91	25 55	26 45
138	Taunton,	113,995 00	117,087 95	5,159	4,480	22 09	25 45	26 14
96	Wellfleet,	3,276 14	4,240 52	125	130	26 21	32 62	32 62
181	Acton,	7,848 91	9,003 76	319	312	24 60	25 16	28 86
63	Greenfield,	36,649 77	37,996 47	1,419	1,461	25 83	25 08	26 01
70	Norfolk,	2,982 81	4,349 81	148	119	20 15	25 07	36 55
81	Bourne,	6,923 89	8,081 15	222	278	31 19	24 91	29 07
98	Abington,	21,070 87	22,353 71	376	847	56 04	24 88	26 39
152	Raynham,	4,797 88	5,636 64	267	193	17 97	24 86	29 21
202	Framingham,	48,798 45	49,298 49	1,738	1,967	28 08	24 81	25 06
107	Everett,	136,208 98	136,208 98	5,401	5,496	25 22	24 78	24 78
113	Marlborough,	52,583 65	52,733 82	2,906	2,123	18 09	24 77	24 84
90	Warefield,	49,597 80	51,348 35	1,843	2,011	26 91	24 66	25 53
95	Fall River,	321,862 28	328,881 78	22,267	13,063	14 45	24 64	25 18
127	Williamstown,	18,570 80	18,820 80	848	754	21 89	24 63	24 96
161								
1903-4.								

SCHOOL RETURNS.

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139	116	Foxborough,	.	.	.	12,807 00	14,177 34	508	523	25 21	24 49	27 11
21	117	Lynnfield,	.	.	.	2,537 61	3,592 47	122	104	20 80	24 40	34 54
88	118	Pittsfield,	.	.	.	88,505 95	88,505 95	4,320	3,650	20 49	24 25	24 25
121	119	Weymouth,	.	.	.	49,943 73	50,011 23	1,896	2,061	26 34	24 23	24 27
73	120	Southbridge,	.	.	.	24,778 28	25,603 28	2,234	1,023	11 09	21 22	25 02
112	121	Palmer,	.	.	.	23,567 88	24,082 27	1,290	978	18 26	24 09	24 62
216	122	Kingston,	.	.	.	9,037 06	10,365 30	367	376	24 62	24 03	27 57
132	123	North Attleborough,	.	.	.	28,638 88	28,638 88	1,254	1,194	22 83	23 99	23 99
124	124	Grafton,	.	.	.	19,319 12	20,961 48	933	812	20 71	23 79	25 81
101	125	Amesbury,	.	.	.	24,600 57	24,822 57	1,567	1,036	15 69	23 74	23 96
142	126	Chelsea,	.	.	.	135,945 34	137,320 34	6,677	5,788	20 36	23 48	23 73
135	127	Adams,	.	.	.	38,397 09	38,397 09	2,471	1,641	15 54	23 39	23 39
71	128	Warwick,	.	.	.	1,728 78	3,263 23	114	74	15 16	23 36	44 09
173	129	Stoughton,	.	.	.	18,290 86	19,234 80	958	784	19 09	23 33	23 31
129	130	Natick,	.	.	.	39,655 58	39,655 58	1,621	1,701	24 46	23 31	23 31
239	131	Uxbridge,	.	.	.	15,966 65	17,031 41	734	687	21 75	23 24	24 79
165	132	Westborough,	.	.	.	14,404 65	14,611 11	673	621	21 40	23 20	23 53
123	133	Townsend,	.	.	.	5,923 48	7,513 87	254	256	23 32	23 14	28 96
170	134	Agawam,	.	.	.	9,396 40	10,680 40	500	406	18 79	23 14	26 31
153	135	Duxbury,	.	.	.	5,545 13	6,237 97	221	240	25 09	23 10	25 99
97	136	Princeton,	.	.	.	3,140 79	4,496 70	154	136	20 39	23 09	32 77
191	137	Sandwich,	.	.	.	4,987 39	5,994 65	217	216	22 98	23 09	27 75
94	138	Spencer,	.	.	.	24,193 55	24,706 32	1,391	1,051	17 39	23 02	23 51
117	139	Tisbury,	.	.	.	3,473 92	4,251 83	145	151	23 95	23 01	28 14
147	140	Dudley,	.	.	.	8,044 15	9,059 55	705	350	11 41	22 98	25 88
182	141	Rockland,	.	.	.	23,837 50	24,345 00	1,051	1,037	22 68	22 98	23 48
159	142	Plymouth,	.	.	.	36,412 89	36,431 14	1,655	1,587	22 00	22 94	22 96
115	143	Orange,	.	.	.	23,720 31	23,891 03	1,056	1,035	22 46	22 92	23 08
118	144	Stonham,	.	.	.	24,031 09	24,166 09	1,003	1,050	23 96	22 89	23 02
116	145	Braintree,	.	.	.	29,011 02	29,011 02	1,166	1,250	24 53	22 88	23 21
185	146	Chelmsford,	.	.	.	16,005 12	17,004 62	759	702	21 09	22 80	24 22
193	147	Middleborough,	.	.	.	26,278 41	26,278 41	1,090	1,153	24 11	22 78	22 79
140	148	Westford,	.	.	.	8,664 73	10,112 09	389	381	22 27	22 74	26 54
177	149	Fairhaven,	.	.	.	15,431 49	17,205 73	771	682	20 01	22 63	25 23
179	150	West Brookfield,	.	.	.	4,119 39	5,423 45	180	182	22 89	22 63	29 80
252	151	Stow,	.	.	.	4,095 79	5,722 88	178	182	23 01	22 54	31 44
189	152	Bridgewater,	.	.	.	18,986 26	28,321 29	843	843	24 98	22 52	33 60
133	153	Peabody,	.	.	.	40,164 30	40,303 80	2,206	1,785	18 21	22 50	22 58
120	154	North Andover,	.	.	.	17,565 97	17,685 97	816	781	21 53	22 49	22 65

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1903-4.								
180	BillERICA,	\$10,349 31	\$11,820 92	460	461	\$22 50	\$22 45	\$25 64
155	TyNSBOROUGH,	2,464 57	4,231 52	117	110	21 06	22 41	38 47
134	ATHOL,	23,746 05	25,277 95	1,199	1,061	19 80	22 38	23 82
175	WARHAM,	12,570 02	13,320 02	608	563	20 67	22 33	23 66
146	HOPKINTON,	9,247 93	10,962 76	432	416	21 41	22 33	26 35
128	METHUEN,	29,428 64	29,536 64	1,622	1,332	18 14	22 09	22 17
161	GRANBY,	2,607 08	4,202 80	116	118	22 47	22 09	35 62
126	MEDFIELD,	5,364 57	6,669 56	230	243	23 32	22 08	27 45
168	HANOVER,	7,327 54	8,396 60	336	332	21 80	22 07	25 29
187	RANDOLPH,	13,881 90	15,232 39	653	632	21 26	21 96	24 10
197	CHESHIRE,	3,553 55	4,801 35	208	162	17 08	21 94	29 64
158	MERRIMAC,	8,453 49	9,414 35	361	386	23 42	21 90	24 39
154	QUINCY,	111,000 00	111,204 16	5,884	5,112	18 85	21 71	21 75
167	SHELburnE,	5,252 39	6,532 72	211	242	24 89	21 70	26 99
130	MARBLEHEAD,	25,000 00	25,000 00	1,073	1,152	23 29	21 70	21 70
186	WHITMAN,	24,156 65	24,586 65	1,076	1,116	22 45	21 65	22 03
217	GRANT BARRINGTON,	20,783 16	23,678 69	1,041	961	19 96	21 63	24 64
105	NORTHBOROUGH,	7,428 09	9,041 15	363	344	20 46	21 59	26 28
183	CLINTON,	43,925 24	43,925 24	2,563	2,039	17 14	21 54	21 54
173	NORTHFIELD,	4,132 76	5,256 76	240	192	17 22	21 52	27 38
203	SHERBORN,	3,825 02	5,058 76	212	178	18 04	21 49	28 42
137	NEWBURYPORT,	38,629 74	41,019 24	2,494	1,797	15 49	21 49	22 83
188	DANVERS,	31,634 37	32,024 37	1,317	1,474	24 02	21 46	21 86
163	BROOKFIELD,	42,495 92	11,016 48	504	454	19 27	21 40	24 27
198	GARDNER,	9,713 54	42,495 92	2,038	1,987	20 85	21 39	21 39
210	PEPPERELL,	14,757 45	15,462 31	620	690	23 80	21 39	22 41
243	SHEFFIELD,	5,132 70	6,620 59	282	241	18 20	21 29	27 47
181	NORTH BROOKFIELD,	9,017 46	10,509 85	535	424	16 86	21 27	24 79
303								

225	183	West Bridgewater,	5,902 79	6,863 22	300	278	19 67	21 23	24 69
119	184	Leicester, . . .	12,551 94	13,855 25	592	592	21 20	21 20	22 44
166	185	Amherst, . . .	16,048 64	17,815 12	703	757	22 83	21 20	23 53
213	186	Sterling, . . .	4,153 96	5,693 59	194	196	20 90	21 19	29 05
176	187	Holliston, . . .	8,886 40	10,308 57	415	420	21 41	21 16	24 54
188	188	Maynard, . . .	14,887 03	14,262 03	728	674	19 59	21 16	22 09
122	189	Bolton, . . .	2,232 47	4,219 94	92	106	24 27	21 06	39 81
232	190	Dartmouth, . . .	11,406 14	12,679 62	601	543	18 98	21 01	23 35
162	191	Ladlow, . . .	9,371 01	11,079 45	504	449	18 59	20 87	24 67
204	192	South Hadley, . . .	16,406 21	18,183 10	791	787	20 74	20 85	23 14
226	193	Hadley, . . .	4,991 20	7,089 62	260	240	19 19	20 79	29 54
167	194	Lee, . . .	11,906 19	13,904 97	754	573	15 67	20 78	24 27
212	195	Hudson, . . .	19,832 64	20,116 24	1,020	955	19 25	20 77	21 06
106	196	Edgartown, . . .	3,189 28	3,639 28	151	154	21 12	20 71	23 63
141	197	Newbury, . . .	4,089 44	5,005 01	239	198	17 11	20 65	25 28
235	198	West Springfield, . . .	30,634 00	32,820 10	1,540	1,483	19 89	20 65	22 13
157	199	Milford, . . .	32,297 91	32,715 41	1,880	1,575	17 18	20 51	20 77
207	200	Woburn, . . .	56,916 26	57,579 51	3,312	2,777	17 18	20 49	20 73
201	201	Northbridge, . . .	25,873 65	25,911 65	1,366	1,267	18 94	20 42	20 45
56	202	West Boylston, . . .	4,873 19	8,585 67	215	239	22 67	20 39	35 92
169	203	Shrewsbury, . . .	5,563 96	6,722 62	260	273	21 40	20 38	24 62
195	204	Holden, . . .	9,001 63	10,626 49	520	442	17 31	20 36	24 04
292	205	Conway, . . .	4,301 00	5,477 69	232	213	18 54	20 19	25 72
214	206	Easton, . . .	20,194 01	25,385 00	940	1,001	21 48	20 17	25 35
192	207	Saugus, . . .	23,550 00	24,009 80	1,194	1,170	19 72	20 13	20 52
220	208	Wilmington, . . .	6,719 70	7,883 51	337	335	19 94	20 06	23 53
86	209	Tewksbury, . . .	8,501 09	9,771 77	497	424	17 10	20 05	23 05
205	210	Orleans, . . .	3,826 21	5,008 84	180	191	21 26	20 03	26 22
211	211	Upton, . . .	6,103 81	7,266 20	313	305	19 50	20 01	23 82
212	212	Hubbardston, . . .	3,813 69	4,627 95	212	191	17 94	20 00	24 23
200	213	Chatham, . . .	5,000 00	5,839 92	247	251	20 24	19 92	23 26
316	214	Dighton, . . .	5,516 86	6,869 52	303	278	18 21	19 84	24 71
199	215	Lunenburg, . . .	3,863 97	5,040 72	224	195	17 25	19 82	25 85
247	216	Gloucester, . . .	90,531 86	90,531 86	4,538	4,570	19 95	19 81	19 81
342	217	Hawley, . . .	923 33	2,276 52	71	47	13 14	19 65	48 44
149	218	Brewster, . . .	2,253 65	3,234 39	131	116	17 20	19 43	27 88
273	219	Medway, . . .	8,441 21	9,952 21	410	436	20 59	19 36	22 83
246	220	Millbury, . . .	13,865 20	15,154 41	888	718	15 61	19 31	21 11
156	221	East Bridgewater, . . .	10,290 24	11,945 42	481	534	21 39	19 27	22 37

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools for school support.		TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
			Local tax only.	Local tax plus the State and other contributions.	Intown between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1902-3.	1903-4.								
253	222	Rutland,	\$4,451 06	\$5,583 95	254	231	\$17 52	\$19 27	\$24 17
224	223	Bellingham,	4,847 56	6,531 96	273	252	17 76	19 24	25 92
229	224	Rockport,	14,939 00	15,184 81	801	777	18 65	19 23	19 54
299	225	Royalston,	2,592 09	3,284 59	139	135	18 65	19 21	24 33
325	226	Prescott,	1,286 70	2,538 18	72	67	17 87	19 20	37 88
111	227	Dracut,	9,534 54	11,789 11	648	498	14 71	19 15	23 67
266	228	Groveland,	8,169 35	9,706 56	404	429	20 22	19 04	22 63
51	229	Franklin,	17,020 92	17,658 92	998	896	17 06	19 00	19 69
258	230	Becket,	2,593 92	3,590 13	162	137	16 01	18 93	26 21
208	231	Nantucket,	7,523 39	7,523 39	422	398	17 83	18 90	18 90
172	232	Douglas,	5,394 39	6,584 27	307	286	17 57	18 86	23 02
102	233	Monson,	12,536 25	14,710 61	648	665	19 34	18 85	22 12
259	234	Sturbridge,	6,196 35	7,723 20	367	330	16 88	18 78	23 40
254	235	Paxton,	1,200 00	2,497 18	76	64	15 79	18 75	39 02
284	236	Lakeville,	2,585 36	4,120 34	175	138	14 77	18 73	29 86
297	237	Dennis,	6,963 84	8,287 51	325	373	21 43	18 67	22 22
184	238	Warren,	14,863 58	17,371 52	811	798	18 33	18 63	21 77
209	239	Swansea,	4,282 56	5,662 81	258	231	16 59	18 54	24 51
350	240	Pembroke,	3,139 74	3,986 41	189	170	16 61	18 47	23 45
308	241	Tolland,	719 37	1,735 30	48	39	14 99	18 45	44 49
249	242	Shirley,	4,240 05	5,423 07	247	231	17 17	18 36	23 48
260	243	Harwich,	6,806 53	7,967 44	389	372	17 49	18 29	21 42
190	244	Acushnet,	3,122 20	4,988 54	239	172	13 06	18 15	29 00
233	245	Rehoboth,	4,893 69	6,405 89	291	271	16 19	18 06	23 64
219	246	Oxford,	8,622 14	9,714 50	541	482	15 93	18 05	20 15
234	247	Ipswich,	13,275 61	16,843 61	794	741	16 72	17 92	22 73
251	248	Oakham,	1,395 21	2,504 60	72	78	19 38	17 88	32 11
222	249	Holbrook,	7,904 33	9,154 79	412	443	19 19	17 84	20 67

SCHOOL RETURNS.

CV

281	250	Boylston,	2,262 24	3,647 60	127	127	17 81	17 81	38 72
286	251	Harcock,	1,031 06	2,255 81	62	58	17 78	17 78	38 89
285	252	Millis,	4,047 54	5,536 60	248	229	17 67	17 67	24 18
227	253	Chester,	4,303 91	6,898 79	233	256	17 59	17 59	26 95
283	254	Easthampton,	19,119 44	21,423 52	1,141	1,098	17 41	17 41	19 51
288	255	Ashfield,	2,550 00	5,226 37	151	147	17 35	17 35	35 55
256	256	Westminster,	3,979 15	5,357 94	243	230	16 38	16 38	23 29
171	257	New Braintree,	1,063 73	2,756 62	80	62	17 16	17 16	44 46
240	258	Blandford,	2,140 96	3,752 70	143	125	14 97	14 97	30 02
314	259	Essex,	5,473 15	6,549 49	357	324	15 33	15 33	30 21
313	260	Hinsdale,	4,149 34	5,365 00	253	246	16 40	16 40	21 81
264	261	Brimfield,	1,926 13	2,879 44	135	115	16 75	16 75	25 04
263	262	Salisbury,	3,982 12	5,368 74	284	238	14 02	16 73	22 56
263	263	Ayer,	8,068 23	9,298 57	458	483	17 62	16 70	19 25
267	264	Freetown,	3,607 76	4,414 40	273	216	13 22	16 70	20 44
245	265	Mansfield,	12,256 04	12,862 54	735	735	15 30	16 67	17 50
315	266	Avon,	5,148 18	6,459 43	329	314	15 65	16 39	20 57
289	267	Southampton,	1,995 60	3,823 05	171	122	11 67	16 36	31 34
307	268	Ashburnham,	5,901 84	6,361 86	369	363	15 99	16 26	17 53
276	269	Lanesborough,	1,867 60	3,298 41	132	116	14 15	16 10	28 43
294	270	Blackstone,	15,823 44	15,954 69	1,160	986	13 64	16 05	16 18
76	271	Barnardston,	2,197 80	4,380 67	127	137	17 31	16 04	31 98
275	272	Eastham,	1,131 25	2,625 81	84	71	13 47	15 93	36 98
109	273	Mendon,	2,322 96	3,699 48	142	146	16 36	15 91	25 34
290	274	Rochester,	2,322 44	3,563 31	156	147	14 88	15 80	24 24
324	275	Truro,	1,972 20	2,779 43	145	125	13 60	15 78	22 24
287	276	Otis,	1,021 04	2,165 89	89	65	11 47	15 72	33 32
270	277	Hanson,	2,905 42	4,407 34	206	185	14 14	15 70	23 82
262	278	Enfield,	2,460 10	3,831 10	147	157	16 74	15 67	24 40
279	279	Templeton,	8,420 88	10,097 24	668	539	12 61	15 62	18 73
280	280	Georgetown,	4,169 66	5,439 42	291	267	14 33	15 62	20 37
306	281	Provincetown,	12,448 40	13,599 70	802	803	15 52	15 50	16 94
231	282	Phillipston,	819 70	2,026 90	60	53	13 66	15 47	38 24
223	283	Somerset,	5,807 15	8,092 13	448	377	12 96	15 40	21 46
206	284	Hamden,	1,445 40	2,891 74	106	94	13 64	15 38	30 76
237	285	West Tisbury,	793 26	2,299 36	51	52	15 55	15 26	44 22
302	286	Gill,	1,801 63	3,250 90	144	119	12 51	15 14	27 32
322	287	East Longmeadow,	4,231 02	7,070 52	314	280	13 47	15 11	25 25
310	288	Winchendon,	13,825 60	23,722 96	1,058	916	13 07	15 09	25 89

Table showing the comparative amounts of money expended for the support, etc. — Concluded.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SCHOOLS FROM THE —		NUMBER OF CHILDREN —		AMOUNT OF LOCAL TAX FOR SCHOOL SUPPORT FOR EACH CHILD BETWEEN FIVE AND FIFTEEN YEARS OF AGE.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1902-3.								
221	Hatfield,	\$3,346 65	\$5,083 61	230	223	\$14 55	\$15 01	\$22 79
289	Huntington,	4,790 26	6,696 95	311	320	15 40	14 97	20 93
304	New Marlborough,	2,588 69	4,163 58	203	173	12 75	14 96	24 07
298	Rowley,	2,726 79	3,372 60	218	183	12 51	14 90	18 43
311	Westport,	5,986 70	8,139 13	557	405	10 75	14 78	20 10
295	Granville,	2,388 24	4,043 68	176	163	13 57	14 65	24 81
296	Washington,	949 00	2,105 03	76	65	12 49	14 60	32 39
309	Richmond,	1,379 11	3,123 45	103	95	13 39	14 52	32 97
296	Berlin,	1,921 80	3,531 81	165	133	11 65	14 45	26 58
174	Charlton,	4,959 54	6,279 39	402	345	12 34	14 37	18 20
250	Greenwich,	1,176 74	1,176 74	104	82	11 31	14 35	14 35
300	Russell,	1,831 22	3,257 13	145	128	12 63	14 31	25 45
268	Egremont,	1,301 92	3,556 68	93	91	13 99	14 31	39 08
327	Chesterfield,	1,197 88	2,585 33	97	84	12 35	14 26	30 78
291	Carlisle,	995 97	2,221 39	87	70	11 45	14 23	31 73
303	Alford,	540 00	1,330 23	41	38	13 17	14 21	35 01
341	Middleton,	1,586 65	2,917 96	146	112	10 87	14 17	26 05
265	Erving,	2,334 02	4,149 73	161	167	14 50	13 98	24 85
318	Seekonk,	3,069 16	4,020 87	277	220	11 08	13 95	18 28
317	Williamsburg,	5,237 54	7,975 43	370	380	14 16	13 78	20 99
305	Colrain,	3,699 59	5,872 32	350	270	10 57	13 70	21 75
242	Sandisfield,	1,177 57	2,473 21	109	86	10 80	13 69	28 76
277	Buckland,	3,282 35	5,498 58	263	242	12 48	13 56	22 72
256	Monterey,	829 82	2,243 23	86	62	9 65	13 88	36 18
244	Boxborough,	681 93	2,570 33	64	51	10 66	13 37	50 40
125	Sutton,	6,754 70	9,054 78	585	515	11 55	13 12	17 58
278	Mt. Washington,	260 55	1,431 48	23	20	11 33	13 03	71 57
337	Auburn,	3,603 92	5,624 39	343	277	10 51	13 01	20 31
236								
1903-4.								
221	Hatfield,	\$3,346 65	\$5,083 61	230	223	\$14 55	\$15 01	\$22 79
289	Huntington,	4,790 26	6,696 95	311	320	15 40	14 97	20 93
304	New Marlborough,	2,588 69	4,163 58	203	173	12 75	14 96	24 07
298	Rowley,	2,726 79	3,372 60	218	183	12 51	14 90	18 43
311	Westport,	5,986 70	8,139 13	557	405	10 75	14 78	20 10
295	Granville,	2,388 24	4,043 68	176	163	13 57	14 65	24 81
296	Washington,	949 00	2,105 03	76	65	12 49	14 60	32 39
309	Richmond,	1,379 11	3,123 45	103	95	13 39	14 52	32 97
296	Berlin,	1,921 80	3,531 81	165	133	11 65	14 45	26 58
174	Charlton,	4,959 54	6,279 39	402	345	12 34	14 37	18 20
250	Greenwich,	1,176 74	1,176 74	104	82	11 31	14 35	14 35
300	Russell,	1,831 22	3,257 13	145	128	12 63	14 31	25 45
268	Egremont,	1,301 92	3,556 68	93	91	13 99	14 31	39 08
327	Chesterfield,	1,197 88	2,585 33	97	84	12 35	14 26	30 78
291	Carlisle,	995 97	2,221 39	87	70	11 45	14 23	31 73
303	Alford,	540 00	1,330 23	41	38	13 17	14 21	35 01
341	Middleton,	1,586 65	2,917 96	146	112	10 87	14 17	26 05
265	Erving,	2,334 02	4,149 73	161	167	14 50	13 98	24 85
318	Seekonk,	3,069 16	4,020 87	277	220	11 08	13 95	18 28
317	Williamsburg,	5,237 54	7,975 43	370	380	14 16	13 78	20 99
305	Colrain,	3,699 59	5,872 32	350	270	10 57	13 70	21 75
242	Sandisfield,	1,177 57	2,473 21	109	86	10 80	13 69	28 76
277	Buckland,	3,282 35	5,498 58	263	242	12 48	13 56	22 72
256	Monterey,	829 82	2,243 23	86	62	9 65	13 88	36 18
244	Boxborough,	681 93	2,570 33	64	51	10 66	13 37	50 40
125	Sutton,	6,754 70	9,054 78	585	515	11 55	13 12	17 58
278	Mt. Washington,	260 55	1,431 48	23	20	11 33	13 03	71 57
337	Auburn,	3,603 92	5,624 39	343	277	10 51	13 01	20 31
236								

272	317	Halifax,	.	.	.	1,000 00	2,489 15	79	12 66	12 71	31 51
218	318	North Reading,	.	.	.	1,704 32	3,643 23	136	11 14	12 53	26 79
288	319	Leyden,	.	.	.	814 49	2,408 19	68	11 98	12 53	37 05
334	320	Heath,	.	.	.	1,000 00	2,142 38	86	11 62	12 50	26 78
348	321	Holland,	.	.	.	250 00	832 14	23	10 87	12 50	41 61
320	322	Charlmont,	.	.	.	2,160 41	4,702 43	166	13 01	12 49	27 18
257	323	New Salem,	.	.	.	1,741 06	4,277 30	140	16 74	12 44	30 55
326	324	Westhampton,	.	.	.	1,200 00	2,228 21	120	10 00	12 37	22 97
338	325	Wendell,	.	.	.	954 81	2,513 05	98	9 74	12 24	32 22
329	326	Southwick,	.	.	.	2,123 06	4,554 74	174	11 54	12 20	26 18
330	327	Belchertown,	.	.	.	4,968 14	6,750 39	406	12 24	12 12	16 46
301	328	Savoy,	.	.	.	919 33	2,605 18	91	10 10	11 79	33 39
332	329	Windsor,	.	.	.	1,012 09	2,700 25	95	10 65	11 77	31 39
282	330	Wales,	.	.	.	1,276 31	2,727 20	134	9 52	11 71	25 02
335	331	Tyringham,	.	.	.	403 49	1,532 16	51	7 91	10 91	41 41
339	332	Mashpee,	.	.	.	576 63	1,674 02	62	9 30	10 68	31 00
164	333	Worthington,	.	.	.	1,126 52	3,002 56	130	8 67	10 63	28 33
274	334	Chilmark,	.	.	.	263 99	1,331 91	42	6 29	10 56	53 27
336	335	Whately,	.	.	.	1,093 61	2,203 00	122	8 96	10 52	21 18
343	336	Shutesbury,	.	.	.	682 44	1,855 77	66	10 34	10 50	28 55
328	337	Cumington,	.	.	.	1,427 50	3,751 57	126	11 33	10 49	27 59
261	338	Clarksburg,	.	.	.	1,833 08	3,550 75	269	6 81	10 29	19 95
340	339	Monroe,	.	.	.	506 00	1,733 35	50	10 12	10 12	34 67
345	340	Gosnold,	.	.	.	200 00	544 75	20	10 00	10 00	27 24
333	341	Florida,	.	.	.	800 00	2,269 32	86	9 30	9 76	27 67
323	342	Montgomery,	.	.	.	465 26	2,144 98	55	8 46	9 31	42 90
321	343	West Stockbridge,	.	.	.	1,313 44	3,555 66	170	7 73	9 25	25 04
312	344	Dana,	.	.	.	947 94	2,447 41	130	7 29	8 78	22 66
346	345	Peru,	.	.	.	422 31	1,641 67	64	6 59	8 62	33 50
344	346	Berkley,	.	.	.	1,312 22	2,799 06	161	8 15	8 52	18 18
349	347	Rowe,	.	.	.	757 82	2,057 46	93	8 15	8 42	22 86
346	348	Leverett,	.	.	.	817 35	2,858 15	105	6 65	7 78	27 22
351	349	Middlefield,	.	.	.	666 32	2,263 92	90	7 40	7 09	24 08
347	350	Plainfield,	.	.	.	430 29	1,915 89	71	5 38	6 06	26 98
352	351	Pelham,	.	.	.	345 20	1,749 20	66	4 06	5 23	26 50
353	352	Goshen,	.	.	.	294 07	1,483 78	71	4 14	5 07	25 58
	353	Gay Head,	.	.	.	120 00	963 49	40	3 00	3 00	24 09

GRADUATED TAXATION TABLE.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	COUNTIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1903-1904.								
1	Suffolk,	\$3,331,943 76	\$3,425,165 05	108,773	95,490	\$30 63	\$34 89	\$35 87
2	Norfolk,	788,204 76	812,537 88	28,123	26,268	28 03	30 01	30 93
3	Hamden,	775,968 77	817,715 61	33,917	26,364	22 88	29 43	31 02
4	Middlesex,	2,621,290 37	2,683,841 25	100,333	91,396	26 13	28 68	29 37
5	Bristol,	881,060 62	920,215 57	49,870	34,541	17 67	25 51	26 64
6	Essex,	1,276,901 67	1,303,396 32	61,810	50,366	20 60	25 35	25 88
7	Worcester,	1,310,856 95	1,388,801 55	62,905	52,249	20 84	25 09	26 58
8	Plymouth,	462,337 69	496,063 76	19,047	18,863	24 27	24 51	26 30
9	Berkshire,	341,731 77	380,027 99	18,431	14,426	18 54	23 69	26 34
10	Barnstable,	99,706 59	119,650 86	4,153	4,340	24 01	22 97	27 57
11	Hampshire,	193,932 89	232,325 68	10,337	9,317	18 76	20 81	24 94
12	Dukes,	12,512 08	17,952 03	617	603	20 28	20 75	29 77
13	Franklin,	138,625 39	178,018 70	7,371	6,740	18 81	20 57	26 41
14	Nantucket,	7,523 39	7,523 39	422	398	17 83	18 91	18 91
AGGREGATE FOR THE STATE.		\$12,242,596 70	\$12,783,235 63	506,109	431,361	\$20 42	\$28 38	\$29 63
State,								

II. GRADUATED VALUATION TABLE.

A graduated table in which all the towns in the State are numerically arranged according to the proportion of their taxable property appropriated for the support of public schools for the year 1903-1904.

For 1902-1903, by the State valuation of 1902.	For 1903-1904, by the State valuation of 1903.	TOWNS AND CITIES.	Amount appropri- ated to the support of public schools for each thousand dollars of valua- tion.	For 1902-1903, by the State valuation of 1902.	For 1903-1904, by the State valuation of 1903.	TOWNS AND CITIES.	Amount appropri- ated to the support of public schools for each thousand dollars of valua- tion.
4	1	Huntington, . .	\$8 47	199	46	Uxbridge, . .	\$6 40
2	2	Warren, . .	8 45	38	47	Hudson, . .	6 39
18	3	Abington, . .	8 37	122	48	Chicopee, . .	6 39
12	4	Grafton, . .	8 05	132	49	Kingston, . .	6 38
22	5	E. Longmeadow, .	8 00	29	50	E. Bridgewater, .	6 35
44	6	Norwell, . .	7 99	227	51	Dighton, . .	6 34
25	7	Randolph, . .	7 96	66	52	Agawam, . .	6 31
13	8	Groveland, . .	7 77	57	53	Foxborough, . .	6 31
16	9	Palmer, . .	7 69	101	54	Middleborough, .	6 30
110	10	Ashby, . .	7 49	60	55	Whitman, . .	6 30
172	11	Prescott, . .	7 48	50	56	Lee, . .	6 30
21	12	Brookfield, . .	7 44	55	57	Southborough, .	6 28
27	13	Rockland, . .	7 29	45	58	Holbrook, . .	6 27
10	14	Monson, . .	7 29	19	59	Granville, . .	6 25
35	15	Bridgewater, . .	7 27	84	60	Blackstone, . .	6 21
28	16	Weymouth, . .	7 24	100	61	Norton, . .	6 17
59	17	Hinsdale, . .	7 22	47	62	Wilbraham, . .	6 16
6	18	Clarksburg, . .	7 20	194	63	Conway, . .	6 13
9	19	Orange, . .	7 20	76	64	Millbury, . .	6 12
53	20	Norwood, . .	7 08	33	65	Bellingham, . .	6 11
15	21	Chester, . .	7 06	95	66	Ashburnham, . .	6 09
20	22	Ware, . .	7 03	105	67	Westfield, . .	6 08
14	23	Spencer, . .	6 99	97	68	North Adams, .	6 07
48	24	Northbridge, . .	6 98	106	69	Wakefield, . .	6 07
1	25	West Boylston, .	6 93	93	70	Wayland, . .	6 05
24	26	Adams, . .	6 90	52	71	Littleton, . .	6 05
23	27	N. Attleborough, .	6 89	49	72	Barre, . .	6 04
81	28	Pepperell, . .	6 84	46	73	Provincetown, .	6 04
70	29	Ashland, . .	6 82	112	74	Harwich, . .	6 03
26	30	Gardner, . .	6 68	130	75	Hubbardston, .	6 02
90	31	South Hadley, . .	6 68	87	76	Danvers, . .	6 01
58	32	Wrentham, . .	6 67	37	77	Rehoboth, . .	6 01
32	33	Merrimac, . .	6 62	62	78	Attleborough, .	6 01
120	34	Heath, . .	6 61	302	79	Hawley, . .	6 00
254	35	Sunderland, . .	6 61	40	80	Templeton, . .	5 99
36	36	Montagne, . .	6 60	3	81	Colrain, . .	5 99
88	37	Raynham, . .	6 55	42	82	Williamsburg, .	5 98
64	38	Orleans, . .	6 52	129	83	Hardwick, . .	5 97
72	39	Everett, . .	6 49	71	84	Methuen, . .	5 95
80	40	Dennis, . .	6 49	91	85	Braintree, . .	5 89
34	41	Holden, . .	6 48	126	86	Medway, . .	5 89
77	42	Williamstown, .	6 48	107	87	Malden, . .	5 88
99	43	Rutland, . .	6 47	141	88	Stoughton, . .	5 86
51	44	Natick, . .	6 45	41	89	Mansfield, . .	5 86
74	45	Sturbridge, . .	6 43	332	90	West Newbury, .	5 85

For 1902-1903, by the State valuation of 1902.	For 1903-1904, by the State valuation of 1903.	TOWNS AND CITIES.	Amount appropri- ated to the support of public schools for each thousand dollars of valua- tion.	For 1902-1903, by the State valuation of 1902.	For 1903-1904, by the State valuation of 1903.	TOWNS AND CITIES.	Amount appropri- ated to the support of public schools for each thousand dollars of valua- tion.
103	91	Holliston, . . .	\$5 85	155	153	Woburn, . . .	\$5 19
79	92	Charlemont, . . .	5 84	211	154	Needham, . . .	5 19
78	93	Walpole, . . .	5 84	289	155	Enfield, . . .	5 19
162	94	Avon, . . .	5 83	160	156	Melrose, . . .	5 17
56	95	Belchertown, . . .	5 82	207	157	Cheshire, . . .	5 16
86	96	Reading, . . .	5 82	191	158	Boylston, . . .	5 15
161	97	Millis, . . .	5 81	119	159	Pittsfield, . . .	5 13
69	98	Shelburne, . . .	5 75	202	160	Sandwich, . . .	5 13
149	99	Northampton, . . .	5 74	249	161	Deerfield, . . .	5 12
8	100	Greenfield, . . .	5 72	293	162	Stow, . . .	5 12
30	101	Northborough, . . .	5 71	197	163	Lawrence, . . .	5 03
65	102	Dudley, . . .	5 71	165	164	Rowe, . . .	5 00
102	103	Upton, . . .	5 70	179	165	W. Brookfield, . . .	4 99
92	104	Westminster, . . .	5 67	143	166	Rockport, . . .	4 98
118	105	Brockton, . . .	5 67	94	167	Salisbury, . . .	4 97
7	106	Tyngsborough, . . .	5 65	154	168	Windsor, . . .	4 96
146	107	Chelsea, . . .	5 64	181	169	Fitchburg, . . .	4 95
114	108	Hopkinton, . . .	5 63	214	170	Arlington, . . .	4 95
75	109	Becket, . . .	5 63	109	171	Douglas, . . .	4 93
11	110	New Salem, . . .	5 63	168	172	Ayer, . . .	4 89
98	111	Marlborough, . . .	5 62	133	173	Franklin, . . .	4 89
73	112	Leominster, . . .	5 59	183	174	Stoneham, . . .	4 89
140	113	Wilmington, . . .	5 59	148	175	Peabody, . . .	4 88
68	114	Sheffield, . . .	5 59	174	176	Medford, . . .	4 86
85	115	Westford, . . .	5 59	219	177	Blandford, . . .	4 85
63	116	Saugus, . . .	5 56	175	178	Westborough, . . .	4 85
145	117	W. Springfield, . . .	5 56	166	179	Acushnet, . . .	4 82
231	118	Truro, . . .	5 52	204	180	Worcester, . . .	4 82
67	119	Sutton, . . .	5 50	164	181	Dalton, . . .	4 82
17	120	Buckland, . . .	5 50	223	182	Billerica, . . .	4 82
123	121	Clinton, . . .	5 48	170	183	Quincy, . . .	4 81
156	122	Hingham, . . .	5 47	158	184	Petersham, . . .	4 81
124	123	Athol, . . .	5 47	220	185	Lowell, . . .	4 80
258	124	Dunstable, . . .	5 47	163	186	Tewksbury, . . .	4 80
5	125	Savoy, . . .	5 46	157	187	Brimfield, . . .	4 79
176	126	Revere, . . .	5 45	117	188	Norfolk, . . .	4 77
96	127	Southbridge, . . .	5 44	125	189	Greenwich, . . .	4 77
153	128	N. Brookfield, . . .	5 44	151	190	Townsend, . . .	4 76
139	129	Concord, . . .	5 42	206	191	Winchendon, . . .	4 73
159	130	W. Bridgewater, . . .	5 42	177	192	Cummington, . . .	4 73
167	131	Granby, . . .	5 41	221	193	Sterling, . . .	4 70
104	132	Warwick, . . .	5 41	234	194	Longmeadow, . . .	4 70
39	133	Bernardston, . . .	5 41	186	195	Amesbury, . . .	4 69
135	134	Hanover, . . .	5 38	188	196	Acton, . . .	4 67
82	135	Oxford, . . .	5 38	205	197	Holyoke, . . .	4 66
142	136	Somerville, . . .	5 35	251	198	Winchester, . . .	4 64
150	137	Fairhaven, . . .	5 34	189	199	Shirley, . . .	4 64
113	138	Framingham, . . .	5 32	200	200	Springfield, . . .	4 59
111	139	Chatham, . . .	5 32	136	201	N. Marlborough, . . .	4 58
152	140	Sudbury, . . .	5 30	301	202	Lexington, . . .	4 58
169	141	Easthampton, . . .	5 29	260	203	Sherborn, . . .	4 57
31	142	Somerset, . . .	5 29	137	204	Bolton, . . .	4 56
193	143	Royalston, . . .	5 29	209	205	Rochester, . . .	4 53
128	144	Taunton, . . .	5 28	198	206	Amherst, . . .	4 51
115	145	Westhampton, . . .	5 28	201	207	Freetown, . . .	4 50
228	146	Essex, . . .	5 28	184	208	Canton, . . .	4 50
83	147	Leicester, . . .	5 28	248	209	Salem, . . .	4 49
185	148	Florida, . . .	5 26	131	210	Dracut, . . .	4 49
134	149	Chelmsford, . . .	5 26	210	211	Shrewsbury, . . .	4 48
187	150	Andover, . . .	5 25	195	212	Ashfield, . . .	4 47
171	151	Haverhill, . . .	5 22	213	213	Maynard, . . .	4 47
121	152	Milford, . . .	5 20	294	214	Plympton, . . .	4 44

For 1902-1903, by the State valuation of 1902.	For 1903-1904, by the State valuation of 1903.	TOWNS AND CITIES.	Amount appropri- ated to the support of public schools for each thousand dollars of valua- tion.	For 1902-1903, by the State valuation of 1902.	For 1903-1904, by the State valuation of 1903.	TOWNS AND CITIES.	Amount appropri- ated to the support of public schools for each thousand dollars of valua- tion.
247	215	Tolland, . . .	4 44	282	277	Medfield, . . .	3 52
254	216	Hadley, . . .	4 44	312	278	Princeton, . . .	3 52
54	217	Wales, . . .	4 43	307	279	Groton, . . .	3 52
138	218	Otis, . . .	4 41	278	280	Worthington, . . .	3 52
208	219	Lynn, . . .	4 39	276	281	Lenox, . . .	3 51
43	220	Auburn, . . .	4 37	264	282	Newbury, . . .	3 50
237	221	Dedham, . . .	4 36	116	283	Monterey, . . .	3 46
255	222	Wareham, . . .	4 34	236	284	Peru, . . .	3 46
203	223	Gloucester, . . .	4 33	266	285	Lynnfield, . . .	3 45
240	224	Bedford, . . .	4 31	280	286	Washington, . . .	3 44
243	225	G. Barrington, . . .	4 31	283	287	Shutesbury, . . .	3 43
222	226	Georgetown, . . .	4 30	127	288	W. Stockbridge, . . .	3 42
233	227	Waltham, . . .	4 25	297	289	Eastham, . . .	3 41
225	228	Oakham, . . .	4 23	238	290	Montgomery, . . .	3 36
263	229	Belmont, . . .	4 23	269	291	Carver, . . .	3 34
246	230	Hyde Park, . . .	4 23	313	292	Webster, . . .	3 34
144	231	Brewster, . . .	4 19	259	293	Russell, . . .	3 32
265	232	Fall River, . . .	4 15	256	294	Halifax, . . .	3 32
244	233	Easton, . . .	4 15	298	295	Lancaster, . . .	3 31
182	234	Chesterfield, . . .	4 13	305	296	Topsfield, . . .	3 29
180	235	Richmond, . . .	4 12	196	297	Northfield, . . .	3 28
232	236	Cambridge, . . .	4 11	345	298	Alford, . . .	3 27
279	237	Sharon, . . .	4 10	285	299	Gay Head, . . .	3 27
296	238	Lakeville, . . .	4 09	303	300	Newton, . . .	3 26
229	239	Southwick, . . .	4 08	322	301	Wellfleet, . . .	3 25
290	240	New Bedford, . . .	4 07	235	302	Berkley, . . .	3 23
257	241	Lanesborough, . . .	4 06	300	303	Tisbury, . . .	3 23
262	242	Lunenburg, . . .	4 05	108	304	Mashpee, . . .	3 21
268	243	Wendell, . . .	4 05	342	305	Holland, . . .	3 20
250	244	Barnstable, . . .	4 04	318	306	Stockbridge, . . .	3 19
61	245	Erving, . . .	4 04	178	307	Dover, . . .	3 17
328	246	New Ashford, . . .	4 03	311	308	Wellesley, . . .	3 12
212	247	Hanson, . . .	4 02	334	309	Yarmouth, . . .	3 06
277	248	Gill, . . .	4 01	316	310	Duxbury, . . .	3 05
216	249	Southampton, . . .	4 00	325	311	Weston, . . .	3 05
252	250	Plymouth, . . .	3 99	320	312	Hopedale, . . .	3 03
286	251	Dartmouth, . . .	3 98	327	313	Milton, . . .	2 99
192	252	Leyden, . . .	3 97	326	314	Westwood, . . .	2 99
287	253	Marshfield, . . .	3 97	253	315	Burlington, . . .	2 97
242	254	Ludlow, . . .	3 93	324	316	Mattapoisett, . . .	2 97
218	255	Swansea, . . .	3 90	230	317	Boxborough, . . .	2 94
261	256	Paxton, . . .	3 84	323	318	Seekonk, . . .	2 93
89	257	Mendon, . . .	3 82	341	319	Egremont, . . .	2 91
275	258	Beverly, . . .	3 82	284	320	Phillipston, . . .	2 89
217	259	Edgartown, . . .	3 81	335	321	Mt. Washington, . . .	2 88
273	260	Winthrop, . . .	3 79	274	322	Dana, . . .	2 83
190	261	Charlton, . . .	3 75	315	323	Bourne, . . .	2 82
226	262	Sandisfield, . . .	3 75	331	324	Leverett, . . .	2 80
173	263	Hampden, . . .	3 74	337	325	Lincoln, . . .	2 76
241	264	Harvard, . . .	3 73	330	326	Cottage City, . . .	2 68
348	265	Pembroke, . . .	3 72	338	327	Marion, . . .	2 67
271	266	Westport, . . .	3 70	319	328	Boxford, . . .	2 66
295	267	Scituate, . . .	3 67	304	329	New Braintree, . . .	2 62
281	268	Rowley, . . .	3 66	267	330	Whately, . . .	2 59
292	269	Watertown, . . .	3 66	308	331	Middleton, . . .	2 55
299	270	North Andover, . . .	3 65	239	332	North Reading, . . .	2 54
291	271	Newburyport, . . .	3 62	339	333	Boston, . . .	2 54
309	272	Marblehead, . . .	3 61	314	334	Hatfield, . . .	2 53
270	273	Ipswich, . . .	3 59	317	335	Plainfield, . . .	2 47
147	274	Berlin, . . .	3 55	215	336	Monroe, . . .	2 47
224	275	Middlefield, . . .	3 55	333	337	Hamilton, . . .	2 46
272	276	Hancock, . . .	3 54	288	338	Carlisle, . . .	2 45

For 1902-1903, by the State valuation of 1902.	For 1903-1904, by the State valuation of 1903.	TOWNS AND CITIES.	Amount appropri- ated to the support of public schools for each thousand dollars of valua- tion.	For 1902-1903, by the State valuation of 1902.	For 1903-1904, by the State valuation of 1903.	TOWNS AND CITIES.	Amount appropri- ated to the support of public schools for each thousand dollars of valua- tion.
340	339	Cohasset, . . .	\$2 42	310	347	Pelham, . . .	\$1 73
344	340	Falmouth, . . .	2 40	306	348	Tyringham, . . .	1 72
321	341	Swampscott, . . .	2 30	351	349	Manchester, . . .	1 48
343	342	Nantucket, . . .	2 19	352	350	Nahant, . . .	1 10
349	343	Brookline, . . .	1 98	329	351	Chilmark, . . .	1 09
336	344	West Tisbury, . . .	1 97	350	352	Wenham, . . .	1 03
347	345	Goshen, . . .	1 96	353	353	Gosnold, . . .	0 83
346	346	Hull, . . .	1 83				

GRADUATED VALUATION TABLE.

Showing the different counties in the State, numerically arranged, according to the proportion of their taxable property appropriated for the support of public schools for the year 1903-1904.

For 1903-1904, by the State valuation of 1903.	COUNTIES.	Amount appropri- ated to the support of public schools for each thousand dollars of valua- tion.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by con- tributions from other sources than local taxation.	Valuation of 1903.
1	Franklin,	\$5 67	\$138,625 39	\$24,436,147
2	Hampshire,	5 50	193,932 89	35,282,382
3	Berkshire,	5 24	341,731 77	65,220,705
4	Plymouth,	5 17	462,337 69	89,346,443
5	Worcester,	5 10	1,310,856 95	257,205,651
6	Hampden,	4 95	775,968 77	156,559,530
7	Middlesex,	4 71	2,621,290 37	556,239,522
8	Bristol,	4 46	881,060 62	197,746,749
9	Essex,	4 30	1,276,901 67	296,650,488
10	Barnstable,	3 86	99,706 59	25,838,565
11	Norfolk,	3 54	788,204 76	222,613,394
12	Dukes,	2 78	12,512 08	4,504,089
13	Suffolk,	2 63	3,331,943 76	1,265,035,572
14	Nantucket,	2 20	7,523 39	3,422,245

AGGREGATE FOR THE STATE.

State,	\$3 83	\$12,242,596 70	\$3,200,101,482
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III. GRADUATED ATTENDANCE TABLE.

In which all the towns in the State are numerically arranged according to the AVERAGE ATTENDANCE of the children upon the public schools for the year 1903-1904.

TOWNS AND CITIES.				TOWNS AND CITIES.			
		No. of children between 5 and 15 years of age in each town.	Average attendance upon school.			No. of children between 5 and 15 years of age in each town.	Average attendance upon school.
		Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.				Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.	
1	Abington, .	376	783	43	Stoneham, .	1,003	970
2	New Salem, .	104	129	44	Easton, .	940	909
3	Bourne, .	222	244	45	Ayer, .	458	442
4	Ashland, .	232	253	46	Milton, .	1,247	1,202
5	Wayland, .	325	353	47	Braintree, .	1,166	1,123
6	Concord, .	868	941	48	Everett, .	5,401	5,200
7	Shelburne, .	211	226	49	Middleborough, .	1,090	1,049
8	Dennis, .	325	344	50	Gloucester, .	4,538	4,365
9	E. Bridgewater, .	481	499	51	Medfield, .	230	221
10	Enfield, .	147	151	52	Lexington, .	707	677
11	Frammingham, .	1,738	1,783	53	Norwell, .	203	194
12	Wakefield, .	1,843	1,880	54	Yarmouth, .	192	183
13	Danvers, .	1,317	1,344	55	Foxborough, .	508	484
14	Bernardston, .	127	130	56	Huntington, .	311	296
15	Bolton, .	92	94	57	Orleans, .	180	169
16	Bridgewater, .	760	776	58	Carver, .	156	148
17	Barnstable, .	612	622	59	Whitman, .	1,076	1,018
18	Hingham, .	721	732	60	Melrose, .	2,717	2,574
19	Weymouth, .	1,896	1,923	61	Holliston, .	415	392
20	West Boylston, .	215	218	62	Middlefield, .	90	85
21	Nahant, .	110	111	63	Greenfield, .	1,419	1,340
22	Dedham, .	1,294	1,306	64	Lee, .	754	511
23	Wellesley, .	679	685	65	Monson, .	648	611
24	Cummington, .	126	127	66	Kingston, .	367	346
25	Amherst, .	703	706	67	Marion, .	134	126
26	Pepperell, .	620	621	68	Winchester, .	1,485	1,395
27	Oakham, .	72	72	69	Reading, .	967	905
28	Groveland, .	404	403	70	Provincetown, .	802	749
29	Falmouth, .	420	416	71	Townsend, .	254	237
30	Holbrook, .	412	408	72	Williamsburg, .	370	344
31	Hopedale, .	276	273	73	Swampscott, .	705	654
32	Merrimac, .	361	357	74	Lenox, .	548	508
33	Chester, .	233	230	75	Groton, .	355	329
34	Medway, .	410	404	76	Mendon, .	142	131
35	Natick, .	1,621	1,594	77	West Tisbury, .	51	47
36	Stow, .	178	164	78	Shrewsbury, .	260	239
37	Wellfleet, .	125	122	79	Brookline, .	3,309	3,039
38	Erving, .	161	157	80	Sudbury, .	169	155
39	Tisbury, .	145	141	81	Rockland, .	1,051	964
40	Marblehead, .	1,073	1,042	82	Sterling, .	194	178
41	Charlemont, .	166	161	83	Medford, .	3,580	3,274
42	Duxbury, .	221	214	84	Ashburnham, .	369	337

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.
85	Orange, . . .	1,056	964	.91	144	Dnnstable, . . .	65	56	.86
86	Halifax, . . .	79	72	.91	145	Prescott, . . .	72	62	.86
87	South Hadley, . . .	791	721	.91	146	N. Attleboro', . . .	1,254	1,079	.86
88	Wilmington, . . .	337	307	.91	147	Heath, . . .	86	74	.86
89	West Newbury, . . .	221	201	.91	148	Wareham, . . .	608	523	.86
90	Edgartown, . . .	151	137	.91	149	Winthrop, . . .	1,177	1,011	.86
91	Leicester, . . .	592	537	.91	150	Mattapoiset, . . .	169	145	.86
92	Boylston, . . .	127	115	.91	151	Nantucket, . . .	422	362	.86
93	Rockport, . . .	801	727	.91	152	Harwich, . . .	389	333	.86
94	Billerica, . . .	460	416	.90	153	Royalston, . . .	139	119	.86
95	Andover, . . .	1,137	1,027	.90	154	W. Bridgewater, . . .	300	257	.86
96	Rowe, . . .	93	84	.90	155	Cambridge, . . .	15,512	13,250	.85
97	Cohasset, . . .	400	361	.90	156	Hadley, . . .	260	221	.85
98	Acton, . . .	319	2-8	.90	157	Gosnold, . . .	20	17	.85
99	Gardner, . . .	2,038	1,838	.90	158	Norwood, . . .	1,373	1,167	.85
100	Randolph, . . .	653	588	.90	159	Maynard, . . .	728	618	.85
101	Upton, . . .	313	281	.90	160	Southwick, . . .	184	156	.85
102	Hopkinton, . . .	432	387	.90	161	Northborough, . . .	363	307	.85
103	Manchester, . . .	429	385	.90	162	Belmont, . . .	712	602	.85
104	Warren, . . .	811	727	.90	163	Conway, . . .	232	196	.84
105	Marshfield, . . .	247	221	.89	164	Uxbridge, . . .	734	620	.84
106	Chatham, . . .	247	221	.89	165	Westfield, . . .	2,162	1,826	.84
107	W. Brookfield, . . .	180	161	.89	166	Attleborough, . . .	2,163	1,823	.84
108	Belchertown, . . .	406	363	.89	167	Georgetown, . . .	291	245	.84
109	Sandwich, . . .	217	193	.89	168	Monroe, . . .	50	42	.84
110	Shutesbury, . . .	66	59	.89	169	Westminster, . . .	243	204	.84
111	Scituate, . . .	429	383	.89	170	Hancock, . . .	62	52	.84
112	Hanover, . . .	336	299	.89	171	Berkley, . . .	161	135	.84
113	Harvard, . . .	153	136	.89	172	Buckland, . . .	263	220	.84
114	Ashby, . . .	117	104	.89	173	Weston, . . .	280	234	.84
115	Granby, . . .	116	103	.89	174	Westborough, . . .	673	563	.84
116	Ashfield, . . .	151	134	.89	175	Millis, . . .	248	207	.83
117	Needham, . . .	741	656	.89	176	Hinsdale, . . .	253	211	.83
118	North Andover, . . .	816	722	.88	177	Douglas, . . .	307	256	.83
119	Revere, . . .	2,432	2,147	.88	178	Williamstown, . . .	848	705	.83
120	Cottage City, . . .	168	148	.88	179	Wilbraham, . . .	250	207	.83
121	Shirley, . . .	247	217	.88	180	Egremont, . . .	93	77	.83
122	Northbridge, . . .	1,366	1,199	.88	181	Dalton, . . .	552	456	.83
123	Easthampton, . . .	1,141	1,001	.88	182	Chelmsford, . . .	759	627	.83
124	Gay Head, . . .	40	35	.88	183	Gt. Barrington, . . .	1,041	858	.82
125	Saugus, . . .	1,194	1,044	.87	184	Petersham, . . .	113	93	.82
126	Plymouth, . . .	1,655	1,447	.87	185	Athol, . . .	1,199	986	.82
127	Littleton, . . .	221	193	.87	186	Malden, . . .	6,677	5,484	.82
128	Stockbridge, . . .	385	336	.87	187	Worcester, . . .	21,302	17,485	.82
129	Florida, . . .	86	75	.87	188	Sturbridge, . . .	367	301	.82
130	Hudson, . . .	1,020	888	.87	189	Mansfield, . . .	801	658	.82
131	Walpole, . . .	671	584	.87	190	Southborough, . . .	312	255	.82
132	W. Springfield, . . .	1,540	1,340	.87	191	Brookfield, . . .	504	411	.82
133	Westford, . . .	389	338	.87	192	Richmond, . . .	103	84	.82
134	Bellingham, . . .	273	237	.87	193	Springfield, . . .	11,490	9,341	.81
135	Leyden, . . .	68	59	.87	194	Hubbardston, . . .	212	172	.81
136	Arlington, . . .	1,657	1,437	.87	195	Truro, . . .	145	117	.81
137	Avon, . . .	329	285	.87	196	North Reading, . . .	153	124	.81
138	Watertown, . . .	1,408	1,219	.87	197	Essex, . . .	357	289	.81
139	Ipswich, . . .	794	687	.87	198	Hull, . . .	197	159	.81
140	Hatfield, . . .	230	199	.87	199	Franklin, . . .	998	804	.81
141	Somerville, . . .	11,422	9,876	.86	200	Winchendon, . . .	1,058	851	.80
142	Beverly, . . .	2,530	2,185	.86	201	Plympton, . . .	56	45	.80
143	Newton, . . .	5,878	5,062	.86	202	Fairhaven, . . .	771	619	.80

SCHOOL RETURNS.

CXV

TOWNS AND CITIES.			No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.	TOWNS AND CITIES.			No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
203	Northampton, .	3,172	2,544	.80		262	Rowley, . . .	218	162	.74	
204	Grafton, . . .	933	748	.80		263	Chesterfield, .	97	72	.74	
205	Taunton, . . .	5,159	4,134	.80		264	Blandford, . .	143	106	.74	
206	Wrentham, . .	465	372	.80		265	Sheffield, . .	282	209	.74	
207	Montgomery, .	55	44	.80		266	Newbury, . . .	239	177	.74	
208	Quincy, . . .	5,884	4,705	.80		267	Stoughton, . .	958	708	.74	
209	Princeton, . .	154	123	.80		268	Millbury, . . .	888	657	.74	
210	Chelsea, . . .	6,677	5,333	.80		269	Mt Washington, .	23	17	.74	
211	Brockton, . . .	7,609	6,071	.80		270	Leominster, . .	2,333	1,721	.74	
212	Hamilton, . . .	255	203	.80		271	Bedford, . . .	206	152	.74	
213	Tyngsborough, .	117	93	.79		272	Lynnfield, . . .	122	90	.74	
214	Pembroke, . . .	189	150	.79		273	Tewksbury, . .	497	366	.74	
215	Dighton, . . .	303	240	.79		274	Longmeadow, . .	167	123	.74	
216	Westhampton, .	120	95	.79		275	Paxton, . . .	76	56	.74	
217	Hanson, . . .	206	163	.79		276	Boxborough, . .	64	47	.73	
218	Ludlow, . . .	504	399	.79		277	Dover, . . .	128	94	.73	
219	Milford, . . .	1,880	1,487	.79		278	Peabody, . . .	2,206	1,618	.73	
220	Sunderland, . .	129	102	.79		279	Clinton, . . .	2,563	1,887	.73	
221	E. Longm'dow, .	314	248	.79		280	Otis, . . .	89	65	.73	
222	Rutland, . . .	254	200	.79		281	Norfolk, . . .	148	108	.73	
223	Russell, . . .	145	114	.79		282	Deerfield, . . .	319	232	.73	
224	Topsfield, . . .	111	87	.78		283	Berlin, . . .	165	120	.73	
225	Granville, . . .	176	137	.78		284	N. Brookfield, . .	535	388	.73	
226	Holland, . . .	23	18	.78		285	Becket, . . .	162	117	.72	
227	Boston, . . .	98,487	76,884	.78		286	Carlisle, . . .	87	63	.72	
228	Woburn, . . .	3,312	2,585	.78		287	W. Stockbridge, .	170	123	.72	
229	Alford, . . .	41	32	.78		288	Washington, . . .	76	55	.72	
230	Rehoboth, . . .	291	227	.78		289	Barre, . . .	387	279	.72	
231	Windsor, . . .	95	74	.78		290	Templeton, . . .	668	481	.72	
232	Dartmouth, . .	601	468	.78		291	New Marlboro', .	203	146	.72	
233	Lunenburg, . . .	224	174	.78		292	Norton, . . .	274	197	.72	
234	Pittsfield, . . .	4,320	3,354	.78		293	Haverhill, . . .	6,276	4,491	.72	
235	Plainfield, . . .	80	62	.78		294	Cohain, . . .	350	250	.71	
236	Mashpee, . . .	62	48	.77		295	Waltham, . . .	4,023	2,872	.71	
237	Eastham, . . .	84	65	.77		296	Agawam, . . .	500	355	.71	
238	Hampden, . . .	106	82	.77		297	Sharon, . . .	355	252	.71	
239	Lancaster, . . .	402	311	.77		298	Lincoln, . . .	132	93	.70	
240	Leverett, . . .	123	95	.77		299	Northfield, . . .	240	169	.70	
241	Blackstone, . .	1,160	893	.77		300	Cheshire, . . .	208	146	.70	
242	Rochester, . . .	156	120	.77		301	Wales, . . .	134	94	.70	
243	Oxford, . . .	541	415	.77		302	Greenwich, . . .	104	73	.70	
244	Brewster, . . .	131	101	.77		303	Montague, . . .	1,408	987	.70	
245	Somerset, . . .	448	342	.76		304	Westwood, . . .	207	145	.70	
246	Swansea, . . .	258	196	.76		305	New Ashford, . .	10	7	.70	
247	Sherborn, . . .	212	161	.76		306	Palmer, . . .	1,290	901	.70	
248	Gill, . . .	144	109	.76		307	Wenham, . . .	155	108	.70	
249	Methuen, . . .	1,622	1,226	.76		308	Freetown, . . .	273	190	.70	
250	Brimfield, . . .	135	102	.76		309	New Braintree, . .	80	55	.69	
251	Wendell, . . .	98	74	.76		310	Pelham, . . .	85	58	.68	
252	Lynn, . . .	11,305	8,521	.75		311	Seekonk, . . .	277	189	.68	
253	Salisbury, . . .	284	214	.75		312	Whately, . . .	122	83	.68	
254	Sutton, . . .	585	440	.75		313	Marlborough, . .	2,906	1,974	.68	
255	Boxford, . . .	101	76	.75		314	Middleton, . . .	146	99	.68	
256	Phillipston, . .	60	45	.75		315	Burlington, . . .	68	46	.68	
257	Savoy, . . .	91	67	.75		316	Lakeville, . . .	175	118	.67	
258	Goshen, . . .	71	53	.75		317	Spencer, . . .	1,391	935	.67	
259	Dana, . . .	130	97	.75		318	Dracut, . . .	648	434	.67	
260	Holden, . . .	520	387	.74		319	Tolland, . . .	48	32	.67	
261	Charlton, . . .	402	299	.74		320	Lanesborough, . .	132	87	.66	

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
321	Peru, . . .	64	42	.66	338	Hardwick, . . .	544	333	.61
322	Raynham, . . .	267	176	.66	339	Tyringham, . . .	51	31	.61
323	Newburyport, . . .	2,494	1,641	.66	340	Hawley, . . .	71	43	.61
324	Lowell, . . .	14,332	9,418	.66	341	Lawrence, . . .	11,428	6,850	.60
325	Ware, . . .	1,544	1,011	.65	342	Chicopee, . . .	3,447	2,061	.60
326	Salem, . . .	6,203	4,001	.65	343	North Adams, . . .	4,754	2,829	.60
327	Sandisfield, . . .	109	71	.65	344	Warwick, . . .	114	67	.59
328	Amesbury, . . .	343	223	.65	345	New Bedford, . . .	12,566	7,380	.59
329	Monterey, . . .	86	55	.64	346	Fitchburg, . . .	6,297	3,637	.58
330	Canton, . . .	805	513	.64	347	Clarksburg, . . .	269	149	.55
331	Acushnet, . . .	239	152	.64	348	Chilmark, . . .	42	23	.55
332	Adams, . . .	2,471	1,557	.63	349	Fall River, . . .	22,267	11,759	.53
333	Hyde Park, . . .	2,336	1,468	.63	350	Holyoke, . . .	10,223	5,282	.52
334	Southampton, . . .	171	107	.63	351	Dudley, . . .	705	316	.45
335	Amesbury, . . .	1,567	970	.62	352	Southbridge, . . .	2,234	956	.43
336	Westport, . . .	557	344	.62	353	Webster, . . .	1,725	584	.34
337	Worthington, . . .	130	94	.61					

GRADUATED ATTENDANCE TABLE.

Table in which all the counties are numerically arranged according to the AVERAGE ATTENDANCE of their children upon the public schools for the year 1903-1904.

For 1903-1904.	COUNTIES.	Ratio of attendance.	For 1903-1904.	COUNTIES.	Ratio of attendance.
1	Barnstable, . . .	.95	9	Suffolk, . . .	.78
2	Plymouth, . . .	.89	10	Worcester, . . .	.75
3	Dukes, . . .	.89	11	Essex, . . .	.75
4	Norfolk, . . .	.86	12	Berkshire, . . .	.71
5	Nantucket,86	13	Hampden,70
6	Franklin,84	14	Bristol,63
7	Middlesex,84			
8	Hampshire,83		State,77

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